

# Cardamom

Food Science & Tech  
Mysore Series

C.F.T.R.I., MYSORE



JUNE 1979



*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**

**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

*WINNERS*

**'CERTIFICATE OF MERIT'**

**FOR THEIR MERITORIOUS EXPORT PERFORMANCE**

**IN CARDAMOMS FOR THE YEAR 1971-72**

**FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



## CARDAMOM BOARD

Chairman: S. G. SUNDARAM I. A. S.

Director: K. V. GEORGE

Secretary: K. G. NAYAR

### "CARDAMOM"

#### REVISED

#### ADVERTISEMENT TARIFF

Effective from May 1979

Position	All Editions/ Single insertion
----------	-----------------------------------

Back Cover (Double colour)	Rs. 400/-
----------------------------	-----------

Inside Covers	Rs. 350/-
---------------	-----------

per Full Page	Rs. 300/-
---------------	-----------

per Half Page	Rs. 200/-
---------------	-----------

Chief Editor

K. R. KURUP

Editor

C. P. SALEEM

## CARDAMOM BOARD

P. B. No. 1909

ANERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

TELEPHONE : 33837, 33209

TELEX: 885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

Vol. II

JUNE 1979

No. 4

### *in this issue*

Editorial	2
Market for cardamom-Sweden	3
Educational stipends	11
The unpaid workers of cardamom estates —K. R. Kurup	15
Role of honey bees in increasing the production of cardamom —C. P. Saleem	21
Monthly statistical abstract	29
Auction arrivals of cardamom	31
Trade enquiries for cardamom	33
News and notes	35

#### ON THE COVER

Honeybees in Cardamom plantations help to increase the crop besides giving honey. The photograph shows a Cardamom planter extracting honey from the beehives in his plantation.



## TOWARDS NEW AVENUES

The Government of India has decided in principle to bring large cardamom under the purview of the Cardamom Act (1965) to be dealt by Cardamom Board with reference to all aspects of development, marketing, exports etc. Accordingly, the Board's Regional Office headed by a Deputy Director at Gangtok and four Sub-Offices manned by Assistant Directors in Gangtok, Geysing, Mangan in Sikkim and Kalimpong in West Bengal are being opened for the overall development of the large cardamom plantation industry.

If we take a look at the present desolate state of the large cardamom industry, we can see that the industry is still in its primitive stage since no solid developmental programmes have so far been implemented to improve the quality and quantity of this important commercial crop. It will be the Board's task to strive for its overall development by identifying the various production and marketing constraints and planning future line of action. There are various problems confronting the industry on the cultivation, processing and marketing fronts.

On the production side the Board proposes to take up supply of quality seedlings, opening of demonstration plots to demonstrate the scientific methods of cultivation of large cardamom and construction of model curing houses to demonstrate the technique of curing cardamom. The production and supply of quality seedlings raised from seeds is considered to be an important task for laying the foundations of the industry on a sound footing. Such a step is also felt imperative for effectively controlling virus diseases affecting large cardamom as these diseases are not transmitted through seed.

The present method of processing is very crude and unstandardised resulting in poor skin colour and quality of the dried fruits. As good skin colour can attract higher price, introduction of modern methods of curing can go a long way in capturing new markets for this commodity both within the country and abroad.

At present, marketing of large cardamom is mostly on consignment basis. This gives way for the intervention of middlemen who ultimately exploit the growers. It is felt that introduction of auction system will ensure maximum return to the growers of large cardamom also.

As a prerequisite to the implementation of these improvements, it is essential that the planters, traders and others connected with the industry should be educated properly on these aspects. At this juncture, we are reminded of the sordid state the small cardamom plantation industry in the country was in, before the establishment of the Cardamom Board. Far from this, after about a decade of successful existence of the Board, the industry has made unparalleled strides in the various fields of production, export, unit value and export earnings.

Let us hope that the Board's entry into the large cardamom plantation industry will take it to new heights of achievements. ●



*Following is an excerpt on Sweden from the report on the market survey jointly carried out by Cardamom Board and International Trade Centre, Geneva in the Middle East and West European countries. The survey team consisted of Shri N. Bharathan Pillai, Market Development Officer, Cardamom Board and Mr. Brian Mc. Loughlin, Marketing Consultant, International Trade Centre, Geneva. Excerpts on Kuwait, Bahrain, Iran, Qatar, Saudi Arabia and United Arab Emirates appeared in the preceding issues of "Cardamom"*

*—Editor*

## Market for Cardamom-VII

# SWEDEN

### INTRODUCTION

Sweden is the largest individual market for cardamom in Europe. Average imports per annum are in the region of 280-300 tonnes and the principal sources of supply are Guatemala and Tanzania. India's share of the market is very small; in 1975 no Indian cardamom whatsoever was imported into Sweden, while in 1976 only 7 tonnes in total was supplied by India to the Swedish market.

The principal usage of cardamom in Sweden is in the baking of coffee cake and, accordingly, the Swedish market is both an industrial market selling to plant bakeries and a domestic retail market selling to the house wife. The most appropriate qualities are believed to be AGS. AGS 1 and lower grades and accordingly, Sweden offers Indian exporters an opportunity to sell qualities of cardamom which do not have a ready outlet in the prime Middle East markets.

### IMPORT HISTORY

Imports of cardamom to Sweden appear to be declining. Since 1971 the recorded imports per annum for Sweden have appeared to drop 24 per cent—from 340 tonnes to 260 tonnes. This appar-

ent decline in imports of cardamom to Sweden has been consistent since 1973, when imports peaked at 353 tonnes. Since then the decline pattern has been as follows: 1974—23.3 per cent V. previous year; 1975—6.6 per cent V. previous year. In 1976 there was a small recovery of about 7 per cent in the total volume of cardamom imported in to Sweden. Much of the decline was, however, represented by the reduction in imports of so-called Ethiopian cardamom, a wild fruit of similar aroma but not of the genus *eleteria* cardamomum. The import pattern of *eleteria* cardamomum has been broadly static. Full details of the import history—by source—of cardamom to Sweden are set out in Table-1.

The Swedish market for cardamom has been dominated by imports from Guatemala. Until 1975 Guatemala accounted for nearly two thirds of all cardamom imports to Sweden. Since that year, however, the Guatemalan share has declined markedly, while Tanzanian cardamom has become the major element in the Swedish market. In share terms, Tanzania has shown a consistent upward trend since 1973, reflecting the price advantage of Tanzania supplies as against supplies from Guatemala and India.



# V. N. SURULIVEL NADAR & BROTHERS,

CARDAMOM EXPORTERS,  
BODINAYAKANUR, S. India

Cables: "DIAMOND" BODINAYAKANUR

Phone No Office: 232

Residence: 255

Leading Export House for Cardamoms with Representatives  
All Over the World

WINNERS OF AWARD FOR OUTSTANDING EXPORT PERFORMANCE IN 1969-70

AND LARGEST EXPORTERS OF CARDAMOMS FROM INDIA IN 1969-70  
1970-71, 1973-74 and 1974-75

WINNERS OF SPECIAL CERTIFICATE OF MERIT FROM SPICES EXPORT PROMOTION  
COUNCIL FOR 1973-74, BEING LARGEST EXPORTERS

## Plantation Units:

1. THE VELLEMBILLERY ESTATE, MEPADU, Kerala State.
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, Kerala State
3. THE VELLARMALA CARDAMOM ESTATE, MEPPADU, Kerala State

## Auction Unit:

M/s UNITED CARDAMOM AUCTIONEERS, SANTHANPADA, Kerala State

## Our Special Grades:

- "CAMEL" Brand Handpicked Green Cardamoms
- "TAJ" Brand Superior Bold Cardamoms
- "DIAMOND" Brand Special Green Cardamoms

ARE ALL WELL RENOWNED IN ALL ARABIAN COUNTRIES

Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to U. K., U. S. A., Continent, U. S. S. R.  
and East European Countries and Japan with a  
Reputation for Quality.

OUR MOTTO: GUARANTEED QUALITY AND STEADY PROGRESS



Table-1  
IMPORT OF CARDAMOM INTO SWEDEN-BY SOURCE  
DURING 1971 TO 1976

Year	Source	Quantity (M. T.)	Value	
			(Rs. '000s)	(S '000s)
1971	India	30	1,314	182.1
	Guatemala	159	6,044	837.8
	Tanzania	34	1,116	154.7
	Others	119	1,437	199.2
	Total :	342	9,911	1,373.8
1972	India	31	856	106.9
	Guatemala	175	4,585	572.5
	Tanzania	47	983	122.8
	Others	19	233	29.1
	Total :	272	6,657	831.3
1973	India	9	276	33.9
	Guatemala	231	5,721	703.7
	Tanzania	56	1,106	136.0
	Others	57	540	66.5
	Total :	353	7,643	940.1
1974	India	2	110	13.6
	Guatemala	187	9,680	1,198.3
	Tanzania	68	2,640	326.8
	Others	14	330	40.9
	Total :	271	12,760	1,579.6
1975	India	—	—	—
	Guatemala	159	8,360	935.4
	Tanzania	81	2,860	320.0
	Others	3	220	24.6
	Total :	243	11,440	1,280.0
1976	India	7	440	49.5
	Guatemala	104	6,820	767.9
	Tanzania	147	6,380	718.4
	Others	2	220	24.8
	Total :	260	13,860	1,560.6

Source: National Foreign Trade Statistics—Sweden.

Table-2  
SHARE OF IMPORTS - VOLUME BASIS

	1972 %	1973 %	1974 %	1975 %	1976 %
India	11.4	2.6	0.7	—	2.7
Guatemala	64.3	65.4	67.0	65.5	40.0
Tanzania	17.3	15.9	25.1	33.3	56.5
Others	7.0	16.1	5.2	1.2	0.8
Total:	100.0	100.0	100.0	100.00	100.0

Source: Compiled from National Foreign Trade Statistics - Sweden.

The Indian share of the Swedish market is now very small, while in 1972 imports from India constituted just over 11 per cent of all cardamom imported to Sweden, since then they have dropped to less than 3 per cent. Full details of share pattern in the Swedish market for the last five years are set out in the Table-2.

#### SOURCE

The "others" category mainly comprises imports of ground cardamom from intermediate centres such as Hamburg or Rotterdam. Swedish importers commonly use such trading centres as a source of top-up supplies.

Table-3 gives details of the breakdown of cardamom exported from India to Sweden and shows that in the latest two years there have been no direct imports from India to Sweden. In earlier years the breakdown of exports by type illustrates the characteristics of the Swedish market while the dollar price paid for quantities of Alleppey Green imported indicate clearly that the grade quality of all exports from India to Sweden are towards the lower end of the quality spectrum.

#### USAGE

Sweden is primarily a market for medium grades of cardamom and cardamom seeds. The main end-use of cardamom is in the baking of coffee cake, a sweet white bread which is consumed with coffee as an occasional snack. Coffee cake is both baked at home and in large plant bakeries. Trade estimates indicate that about 35 per cent of



total cardamom sold in Sweden is in consumer packs for home baking, while the balance of 65 per cent is sold to industrial users, primarily plant bakeries. There has been some growth in the past two years in the amount of home baking of coffee cake; this has primarily been due to the expense of ready-baked coffee cake. Some indication of the cost of the plant-baked coffee cake can be seen from prices noted in November 1977. At this time 200 gms of coffee cake were selling retail at SKr 5.25; this represents a cost per kilo of US \$ 6.36.

While cardamom is used in relatively low concentrations in the manufacture of coffee cake—the usual level is 10 gms of cardamom to 1 litre of dough—it is the single most expensive ingredient in coffee cake. There has been, particularly in the plant bakeries, a marked reduction in the amount of cardamom being used, as well as a degree of substitution of artificial cardamom flavours or ground Large Cardamom, a trend which may accelerate with the current high prices for cardamom in the world markets. One major importer estimates that the decline in carda-

mom consumption in the industrial market segment could be as much as 50 per cent, as a result of the current high prices.

Cardamom is also used in the manufacture of some meat products. However, trade estimates suggest that this usage probably accounts for no more than 5 per cent of total cardamom imports.

All cardamom in Sweden, whether sold direct to the consumer or industrial users, is ground. In the consumer segment, the major spice packers and marketers estimate that 75 per cent of the sales are in ground form and the balance of 25 per cent is as whole seeds. Usage of whole cardamom is very low. There is a specialised usage of whole cardamom in the preparation of a kind of mulled wine, a tradition during the Christmas period, but the volume accounted for by this is tiny.

Because of the usage pattern, in particular the dominance of ground cardamom in the market, the Swedish consumer is concerned little with the appearance of cardamom. Accordingly, some dried qualities from Tanzania adequately meet the consumer requirements, while the consumer is not prepared to pay the very high prices which are current for higher grades of cardamom from other sources.

## CONSUMER PATTERNS

The population of Sweden is 8.2 million and the national income per capita of \$7.5 thousand per annum, places the Swedish consumer as one of the richest in Europe. Twenty per cent of the population is under the age of 15 years. The population splits almost equally

Table - 3

### EXPORT OF CARDAMOM FROM INDIA TO SWEDEN DURING 1971-72 TO 1975-76

Year	Grades	Quantity (M.T.)		Value (Rs. '000s) (S '000s)	
1971-72	Alleppey Green	17	443	58.2	
	Coorg Green	6	228	30.0	
	Bleached/Bleachable	—	—	—	
	Seeds	11	415	54.5	
	Mixed	—	—	—	
	Total :	34	1,086	142.7	
1972-73	Alleppey Green	5	185	22.9	
	Coorg Green	—	—	—	
	Bleached/Bleachable	—	—	—	
	Seeds	5	166	20.6	
	Mixed	—	—	—	
	Total :	10	351	43.5	
1973-74	Alleppey Green	2	87	10.7	
	Coorg Green	—	—	—	
	Bleached/Bleachable	1	51	6.3	
	Seeds	—	—	—	
	Mixed	—	—	—	
	Total :	3	138	17.0	
1974-75			NIL		
1975-76			NIL		

Source: Cardamom Board, India.



between men and women, the exact proportions being 50.2 per cent female; 49.8 per cent male. Average household size is small, at only 2.6 persons per household, and educational standards are high—71 per cent of the population having completed secondary education and a further 16 per cent having undertaken some form of higher education. The balance of 13 per cent of the population are receiving some form of education.

Sweden is probably the most developed welfare state in Europe. Consumers enjoy a high level of protection which, coupled with the wide range of choice available, makes them probably the most sophisticated consumers in Europe. Over 40 per cent of Swedish households own one house, while a further 23 per cent own a second home. This is normally a small summer house where urban families can take holidays in a rural environment.

While Sweden is a large country by European standards, half the land area is forests. Accordingly, the concentration of population in the South of the country is high. 77 per cent of Swedish consumers live in the Southern area, including the 29.2 per cent who live in or around Stockholm. Ownership of consumer durables is high—90 per cent of homes have a refrigerator, 85 per cent a television set. Ownership of motor vehicles is high; there is one car for every 3.3 Swedish consumers. The combination of high economic standards, high standards of living and a well developed distribution system, makes the Swedish consumer the most discriminating in the world. Moreover, the impact of world

recession was very late in reaching Sweden and the effect there has probably been less than in most countries in Europe. All these factors combine to make Sweden one of the most difficult markets to penetrate. Consumption habits are conservative; the consumer has come to expect the highest standards from all types of consumer products.

## DISTRIBUTION

The retailing of all forms of grocery and food products is highly concentrated. Three large groups account for 80 per cent-plus of food sales. These companies are the major consumer K. F. co-operative; the major buying group I.C.A.; and the major U. N. I. L. wholesalers' chain — There are, therefore, only three significant buying points for the commodities to be sold through retail outlets. Unless a manufacturer or supplier can persuade at least two of the major retailing groups to stock his brand of commodity, there is little chance of achieving any significant level of penetration in to the Swedish market.

This concentration of retailing into a number of large groups has led in turn to a concentration of food manufacturing, particularly the packaging of spices into a small number of companies. In the cardamom market, three companies alone account for 85 per cent of all consumer sales of cardamom. These same companies also account for close on 60 per cent of all industrial sales of cardamom.

The joint brand leader in the retail sector of the cardamom market is 'Kockens' who are a subsidiary of the American Gene-

ral Foods Group and are also licensees of the U.S. McCormicks Spice Packing Company; their brand accounts for 30 per cent approximately of all sales of cardamom at the consumer level; the Sanota Maria brand also accounts for some 30 per cent of cardamom sales. This brand is the private label brand of the I. C. A. retailers, co-operative and is packed for them by Nordfalk Import A. B., one of the major independent spice houses in Sweden. Some 25 per cent of the market for cardamom at the consumer level is accounted for by the K.F. Consumer Co-operative. They sell cardamom under their own brand name and also under licence from the U. S. Durkee Group. The balance of the consumer market is accounted for by smaller brands marketed by the main spice packers and by imported prepacked brands from the U. S., such as Spice Island.

Cardamom is sold prepacked in glass jars and in foil sachets. Typical prices for 8 gms foil packs are SKr 2.75 for cardamom seeds and the same price is charged for 9.3 gms of ground cardamom. The packing of cardamom and other spices in Sweden is highly sophisticated. The standard foil sachet which is produced by all the major packers, are packed at the rate of 120 per minute, while the larger size glass jars, which average about 35 gms weight, and retail at SKr 9.75, are packed at the rate of 30-45 per minute.

The industrial segment of the market is also supplied by the same large grinder/packers who service the consumer market but there are a number of more specialised importer/packers who concentrate on the industrial



segment. Cardamom for use in the bakery industry is normally sold in packs of 1 kg and is distributed through specialised wholesalers supplying the bakery trade. These wholesalers are, in many instances, part of the major co-operative.

Trade margins in Sweden are high. The average wholesaler margin for cardamom and spices is 15 per cent, while the retailer margin is 35 per cent. In addition, a turnover tax of 20.63 per cent is payable on the final selling price to the consumer.

### IMPORT PRACTICES

Cardamom is imported into Sweden by the major grinders/packers, by some of the smaller specialised packers servicing the bakery and industrial market segment, and by indenting agents buying on behalf of either of the two categories of packers. For the co-operative segment, all supplies of cardamom are centrally bought through N. A. F. in Copenhagen, who buy on behalf of the consumer co-operative organisations in Sweden, Norway, Finland and Denmark. Apart from this, most of the business is handled directly by the large grinder/packers, who prefer to import directly from the country of origin. In the case of Guatemalan and Tanzanian cardamom, the exporters have appointed local agents who sell on their behalf to all the major users in the Swedish market.

Between 60 and 80 per cent of all imports are of whole cardamom, usually of the grades equivalent to Indian AGS or AGS 1. The balance of imports are seeds. In the case of

Tanzanian cardamom, sun-dried qualities are usually imported, since the grinders/packers are little concerned with the exterior appearance of the cardamom because virtually all cardamom that is sold in Sweden, either in the consumer or the industrial market segments, is in ground form or cardamom seeds.

The main product characteristics sought by Swedish importers, are a good litre weight—a minimum of 360 gms per litre is considered necessary. In addition, there is concern with the oil content as an indication of the strength of the cardamom.

The overall import trend is downwards at present, mainly because of high prices, and price has been the principal barrier to the importation of Indian Cardamom to Sweden. Favourable prices have been the main reason for the Tanzanian share of the market. A further contributory factor to the importance of Tanzanian cardamom in Sweden is that the importers have been able to place contracts with the Tanzanian suppliers up to six months in advance, at agreed prices.

Shipment is normally directly from the country of production to a Swedish port, though there are instances of trans-shipment through Hamburg and Rotterdam, when direct shipping facilities are not available. On arrival in Sweden, the major packers subject all supplies to a stringent bacteriological and quality control examination.

Factors limiting increased Indian exports to the Swedish market are the perceived image of the quality of Indian Cardamom. All the major importers quoted instances of variations between

the initial sample and the shipment from Indian exporters. In addition, the Government of India ruling that a Letter of Credit must be opened in respect of all cardamom exports, is a barrier to the development of cardamom trade with Sweden. All the importers in Sweden conventionally trade on a Cash against Documents basis. Letter of Credit terms add an additional 1-2 per cent to the purchase price and also are a complicating factor in the importation of cardamom from India.

Swedish importers prefer to establish long-term relationships with individual exporters in the country of supply. In the case of Guatemala and Tanzania, this has been achieved by the appointment of local agents who can maintain close contact with the importers and packers. Indian exporters who are considering penetrating the Swedish market, are advised to consider the appointment of a local agent.

Importers are also confused by the wide variation in quotations for apparently identical grades by Indian exporters. Considerably more market information must be fed to the Swedish importers by Indian exporters, if any long-term business relationship is to be established.

Most Swedish importers are aware of the existence of the Agmark grading standards. However, they do not feel that the quality control guarantee given by these standards are sufficient. It is stringent to provide the importer with any reassurance as to the quality which will be delivered. Since the Swedish packers are concerned to deliver consistent products to discriminating consumers in the industrial and retail market segments, it is



operative that they maintain supply sources who can meet their market requirement throughout the year, without wide fluctuations in either price or quality.

## TARIFFS AND REGULATIONS

There is no duty levied on imports of cardamom to Sweden. The stringent health regulations which are applicable to prepacked food items, are not applied to cardamom as a basic industrial product. However, the major importers and packers themselves subject all shipment of raw materials to bacteriological and chemical analysis.

## PROMOTION

None of the Swedish packers, wholesalers or retailers, undertake any promotional support specifically for cardamom. The complete spice range of Kockens, the major consumer packer of spices in Sweden, is given a small level of advertising support. In addition, all packers in the retail segment of the market provide display racks for their complete spice range.

## DEMAND ASSESSMENT

The underlying statistical trend in imports of cardamom to Sweden is downwards. Much of this is due to the reduction in imports from Ethiopia.

Trade sources in Sweden report that demand for cardamom is static at around 250 tonnes per annum. However, the instances of substitution of wild cardamom and other cardamom substitutes indicate that there is considerable price resistance in the industrial segment of the market. The most important factor in this industrial segment of the market

is consumer resistance to the price of the end product—coffee cake. The retail selling price of this item, according to trade reports increased upto three times over the past five years, which has led in turn to a marked decline in the demand for cardamom from the industrial market segment. This has been partly compensated for by the increased incidence of home baking of coffee cake and a corresponding increase in demand for cardamom in consumer packs. The effect of increased cardamom prices has been to shift the balance between the industrial and consumer segments.

Over the past five years Swedish importers have been trading down in the quality of cardamom which they import. This has led to a marked increase in the quantity of cardamom imported from Tanzania. The sun-dried qualities are fully acceptable to Swedish importers; but now there is evidence that the prices for Tanzanian sun-dried grades are beginning to rise and supplies are not reliable from this source.

There are, therefore, opportunities for Indian exporters to regain some share of the Swedish market. The prices for Guatemalan grades appropriate to the Swedish demand, are now broadly comparable with prices at which Indian exporters can market AGS and AGS 1 grades. Swedish importers have indicated interest in cardamom of this type from India, provided that the litre-weight is at least 360 gms per litre and the quality is consistent.

## PROPOSED STRATEGIES

The promotional objective for India in the Swedish cardamom

market is to regain share against competition from Guatemala and Tanzania. The strategies required to fulfil this promotional objective are essentially practical. There seems to be no justification for any direct consumer promotion in the Swedish market.

To increase their share of the market in Sweden, the Indian exporters must recognise the requirements of Swedish importers in terms of quality grades and quote prices for this appropriate grades which are competitive with those from other supply sources. Exporters must also accept that the quality standards required by the Swedish market may be for lower grades of cardamom but that Swedish importers expect a high degree of consistency both between the sample on which the quotation is based and the volume shipped against the order, and consistency between the qualities offered throughout the year.

## ANNEX

### PRINCIPAL IMPORTERS OF SPICES—SWEDEN

M/s. Gevalia General Foods  
Kochens,  
Gevaliarosterist,  
Box 615, 801 46 Gavle.

Nordfalks AB,  
P. O. B. 63, S—431 21 Molndal,  
Arvid Nordquist H.A.B.,  
Ekensbergsvagen 117,  
S—171 41 Solna.

A/B S J Norman & Co.,  
Styrmansgatan 5,  
S—114 54, Stockholm.

A/B Risenta,  
1, Norrmalmastorg,  
S—111 46, Stockholm.

Kooperative Forbundet,  
Falk 10465, Stockholm 15.

Elof Hansoon,  
Food Department,  
S—413 27, Goteborg.



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

Gram: " PEEACEE "

Phone. 336

*AUCTION CENTRE:*

**VANDANMETTU (Idukki Dist.)**

Phone: 45

*Head Office:*

**329 Main Road, Cumbum-626 516, Madurai Dist.**

*Branches:*

VANDANMETTU (Idukki Dist.)

PAMPUPARA "

CHENKARA "

NARIYAMPARA "

PARATHODE

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



*Distribution of educational stipend is one of the labour welfare measures of the Board. A brief note on this appeared in the last issue while highlighting the various labour welfare measures of the Board. Here we are giving the full details of the Educational Stipend Scheme.*

*-Editor*

The Cardamom Board, in keeping with the spirit of the Cardamom Act, is constantly at work for securing better working conditions, amenities and incentives for the Cardamom Estate workers. A number of welfare measures have already been taken by the Board in this respect. The grant of educational stipend to the children of Cardamom Plantation workers is one among them that concerns with both the immediate and the distant future of workers, their families and their

3. The applicant should not hold any other stipend or scholarship. However, in cases where such grants do not cover hostel fee/boarding charges, a grant under this scheme for such items alone will be considered by the Board on the basis of merit of the case and availability of funds. If the stipend receivable from other departments is lower than the stipend sanctioned by the Board, then the difference in amount

6. A dependent brother or sister of a worker who is wholly dependent on the worker shall also be eligible for the stipend.

7. Stipends will be granted only for education from standard V and upwards.

### Quantum of Stipend

8. lumpsum grant payable to the children studying in middle school classes is Rs. 100 per year.

## EDUCATIONAL STIPENDS

community. The purpose of this scheme is to encourage further education beyond the primary level. The Cardamom Board provides necessary financial assistance to the eligible children of the Cardamom Plantation workers under the scheme. The scheme was first implemented in 1973-74.

### Eligibility

1. Stipends are awarded according to availability of funds.

2. The children of workers employed in Cardamom Plantation Industry are eligible for stipends provided their monthly income do not exceed Rs.500/— (Total emoluments).

will be paid subject to availability of funds.

4. If a recipient of the stipend happens to study in the same class for one year consequent to his/her inability to appear for examination in the first year due to illness, such students are eligible for stipend during the second year also on production of satisfactory evidence.

5. Only two children or dependents of a worker shall be eligible for stipend under this scheme. The second ward will be granted stipend only on the basis of merit of the case and availability of funds.

9. At the secondary education level the lumpsum grant will be Rs. 150/-per year. Further, hostel or boarding charges at the following rates will be payable provided a certificate from the Head of the Institution is produced that the hostel or boarding house is one approved by the Educational Institution as a place of residence for students and that the student concerned was actually residing in that place during period for which the charges are claimed. Hostel fees are payable only for the actual period of stay as certified by the Head of the Institution.



**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available to  
planters.**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**

(A Govt of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekandeswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



## Scale of Grant

Type of Education	Monthly income of the parent / guardian	Tuition fees admissible	Hostel fees admissible p. m.
Middle School / Upper Primary	up to Rs. 500/-	Lumpsum grant of Rs. 100/-per year	Rs. 40/-
High School	..	Lumpsum grant of Rs.150/- per year.	Rs. 50/-
P.U.C./P.D.C./Nursing/ Tech. Diploma/Vocational Training	..	Lumpsum grant of Rs. 250/-per year.	Rs. 75/-
General College degree B.A./B.Sc./B.Com etc.	..	-do-	Rs. 100/-
Post graduate courses/ Medicine/Engg /Agri./ C A /Veterinary Science, etc.	..	Tuition fees plus lumpsum grant of Rs. 150/-per year.	Rs. 150/-

## Tenability of Stipend

- 10 Stipends will be tenable in institutions, in the Indian Union affiliated to or recognised by a University or Board of Secondary Education, or the Director of Public Instructions or some other appropriate public Body or Authority.
11. Stipends will ordinarily be tenable for the duration of one session. Stipend holders desirous of continuing to receive the benefit will have to make a fresh application at the appropriate time.

## Application & Selection

12. Application forms for grant of stipend can be had from Secretary, Cardamom Board, Cochin-682 018,Kerala State, on request. It is also available from Board's Field offices.

13. Selection of candidates for award of stipends will be made by the Board and its decision will be final.

## Payment of Stipends

14. The application for payment is to be made in Form II, supplied by the Board. The stipend will be paid in one instalment or more.
15. Stipends will be paid in arrears against certificate of the expenses having already been incurred by the student and will be remitted through the head of the institution where the stipend holder is studying.

## General

16. A stipend may be withdrawn at any time or suspended for such period as the Board thinks fit if the stipend holder has, by reason of his/her own

act of default, failed to make satisfactory progress in his/her studies or has been guilty of misconduct.

17. while considering the merit special consideration will be given to the Scheduled Caste/ Scheduled Tribe candidates
18. The Board reserves the right to make such additions or amendments to these Rules as it consider necessary at any time. ☐

## Assistance For Export Markets Development

The budgetary proposals for 1979-80 extending the scope of export markets development allowance are expected to act as big incentive in developing export markets. At present, export markets development allowance is granted only to small scale exporters, holders of an Export House Certificate and persons engaged in the business of provision of technical know-how to persons outside India. It is proposed to extend the benefits of this tax concession to all domestic companies and resident non-corporate tax payers at a uniform rate of 133.3 per cent of the qualifying expenditure to enable exporters to develop export markets on a long-term basis. For this purpose expenditure on advertisements or publicity outside India in respect of goods, services or facilities dealt in or provided by the tax payers in the course of his business will be included in the category of expenditure qualifying for the weighted deduction.



# **Associated Cardamom Auctioners (Private) Limited**

(Regd. Office: XXXV/543, Warriam Road,  
COCHIN-16)

This year we quietly enter the field of Cardamom  
auction for better services to the planters,  
Dealers and Exporters.

Selection of any type of cardamom is available  
at our auction.

**AUCTIONS ARE CONDUCTED AT  
KALLAR, VATTIAR P.O.  
ON EVERY WEDNESDAY**



# THE UNPAID WORKERS OF CARDAMOM ESTATES

K. R. KURUP

Honey bees visiting flowers for collection of nectar and pollen can increase cardamom production. Though it may appear to be surprising, it is an established fact. Honey bees are capable of increasing production not only of cardamom plants, but also of any a cultivated crop. Most of us may not believe it, as we have not been convinced of the useful services of honey bees in cardamom plantation through facts and figures. But once we introduce bee colonies in cardamom plantations, we will be convinced of the advantages and then, will never go back. Apart from increasing cardamom production, bees give us the most valued natural tonic on earth—the Honey, which in turn becomes a source of subsidiary income from the plantation.

The role of honey bees in increasing agricultural production has been recognised the world over. We do not have reliable statistics on the additional production in the agricultural front contributed by honey bees. However most of the Western countries have got actual data to show the increase in the national income as a result of the increased agricultural production contributed by honey bees. But estimating back from the quantity of honey and beeswax marketed in India, we can arrive at an approximate figure of Rs. 3 crores as the contribution of honey bees to the nation. From this figure,

a modest estimate of the contribution by honey bee to the nation through increased agricultural production can be made at Rs 30 crores. This is something marvellous indeed.

## ROLE OF HONEY BEES IN CROP PRODUCTION

Honey bees play a vital role in the reproduction of plants. The flowers in the plants not only decorate the plants but also act as seats of reproduction.

The flowers or connected parts of most plants have been given such attractive features as colour, fragrance, nectar etc. mainly to attract pollinating agents like insects. Honey bees, beetles, and a lot of other insects are attracted to the flowers and they help the plant in transferring the pollen grain—the male reproductive part—to the stigma the female reproductive part. This process of pollination takes place without the knowledge of the insects visiting the flowers just for nectar. Pollination in other plants which do not produce attractive flowers without flavour or nectar takes place mostly through the agency of wind. Pollination leads to fertilisation which ultimately results in the production of fruits.

This illustrates the importance of honey bees in cardamom plantations. While taking a look around the cardamom plantation, we can see a large number of honey bees around each plant.

Coming from far off places and forests nearby, they are actually doing yeoman's service to us without asking for it. Each bee will come to the plantation several times a day. They are such hard workers not organised into trade unions raising several kinds of demands. As they are not our paid workers, we do not pay proper attention to them. But please keep this secret that without their services, whatever efforts we make in the plantation will not bear fruit. So we should not neglect them. If the honey bees can do so much of service to us even without our asking for it, can we not pay a little more attention to them and try to accommodate them in the plantation itself?

## HONEY BEES AND SOCIAL SET UP

Honey bees are distinct in many respects from many other insects doing service to farmers. They are the most efficient and reliable cross pollinators among the insect population. They establish their own colonies. A colony of bees consists of the queen, workers, drones, young ones and eggs with the honey combs acting as the core. The queen lays eggs. The adults nurse the young ones and all of them are put up comfortably in a closed peaceful enclosure. Honey bees leaving a colony can fly miles together and return to the same place collecting pollen and nectar. As long as there is a specific plant bearing



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337

♦

*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms for the year 1973-74 from the Ministry of Commerce, Govt. of India and also from the Spices Export Promotion Council, Cochin and shield for 1975-76 from the Spices Export Promotion Council, Cochin.

♦

Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"  
IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



large number of flowers, the bees will not go to another plant in search of nectar or pollen. Each visit to the plant results in the formation of more fruits and seeds as a result of cross pollination. So if the frequency of visit of bees to the plant is increased, the number of fruits produced will naturally be more. The frequency of visit of bees to plants can be increased by accommodating more number of colonies in the plantation itself, when we are definitely ensuring a better harvest. That is all what the cardamom planter has to do.

#### PRE-REQUISITES FOR SUCCESSFUL BEE KEEPING

There are certain pre-requisites for successful bee keeping. The most important of all is the availability of sufficient number of colonies in the vicinity. Most of the colonies now available with bee keepers are collected from their natural habitats or from semi-domesticated abodes. Since large scale apiaries are not available in the plantation areas, procurement of sufficient number of colonies will definitely be a time consuming process. Commercial bee nurseries supplying bee colonies to planters have got good prospects all through the Western Ghats.

Proximity to vegetation supplying abundant quantities of nectar and pollen is the second basic requirement for successful bee keeping. As far as cardamom plantations are concerned, the plants have a comparatively long flowering period ranging from six to eight months. So the colonies located in cardamom plantations will not be affected for want of nectar or pollen. Since most of

the cardamom plantations are located in forest lands amidst tall shade trees, bee colonies located in the plantation areas will definitely have alternate flowering plants offering pollen and nectar during the off seasons. This makes the work of cardamom planters easy.

Availability of bee boxes, honey extractors and other accessories is the third point to be considered. The bee box is very simple which can even be made by an ordinary village carpenter. The Khadi and Village Industries Commission also makes available bee boxes and other accessories

at moderate rates to prospective keepers through their field offices.

Technical advice and training in bee keeping are very important to the beginners. The field staff of the Khadi & Village Industries Commission arrange periodic training programmes to the cultivators on various aspects of bee keeping. Their services will also be readily available to the planters on request.

#### BEE MANAGEMENT

The last but most important point in bee keeping is the patience and perseverance of the bee





# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM

PREMIER OFFERS MORE :

- 1 ECONOMICAL CAPITAL COST.
- 2 STRONG, RELIABLE EQUIPMENT.
- 3 **FREE** TOTAL IRRIGATION PLAN SURVEY TO COMMISSIONING

Specialised and efficient equipment engineered at the lowest capital cost for your plantation.

## SPRINKLERS

Spray water overhead gently and evenly, like rain. Regulated supply prevents water wastage. Creates humid atmosphere necessary for cardamom cultivation.

## COUPLING VALVES

New and exclusive to Premier Systems. Sprinklers are moved and reconnected easily and quickly. Less labour. More irrigation.

## PIPELINES

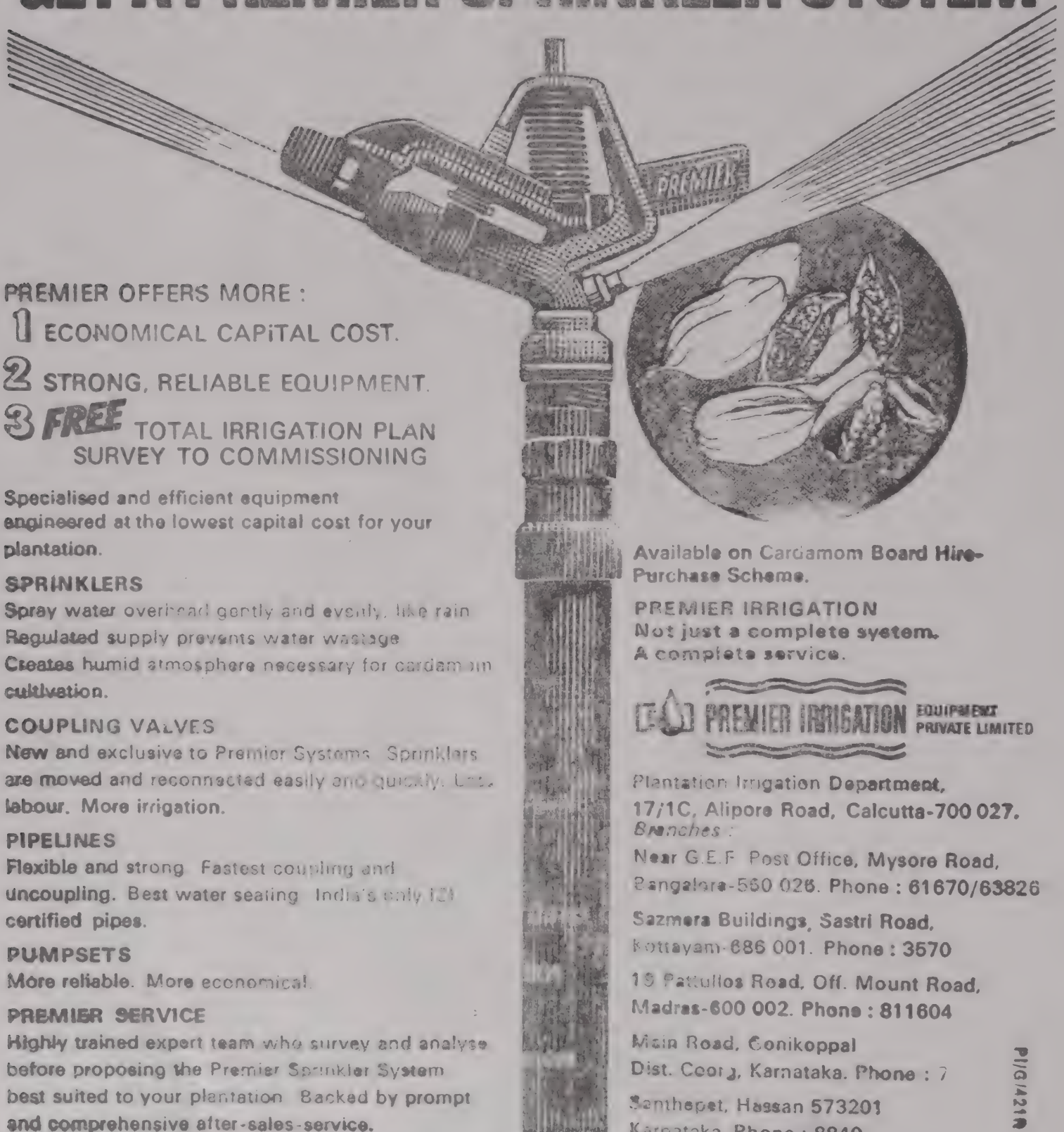
Flexible and strong. Fastest coupling and uncoupling. Best water seating. India's only ISI certified pipes.

## PUMPSETS

More reliable. More economical.

## PREMIER SERVICE

Highly trained expert team who survey and analyse before proposing the Premier Sprinkler System best suited to your plantation. Backed by prompt and comprehensive after-sales-service.



Available on Cardamom Board Hire-Purchase Scheme.

**PREMIER IRRIGATION**  
Not just a complete system.  
A complete service.



Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
*Branches :*

Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 61670/63826

Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570

15 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604

Main Road, Conikoppal  
Dist. Coorg, Karnataka. Phone : 7

Santhepet, Hassan 573201  
Karnataka. Phone : 8840



keeper. He has to put up with the habits of the bees instead of expecting the bees to do so. This is precisely what the planter has to do for all the good work and free services rendered by the honey bees. Is it a real big sacrifice?

Keeping a few bee boxes in the plantation alone will not make one a successful bee keeper. The colonies will have to be maintained properly through close and effective supervision throughout the year. It is here our patience and perseverance count much.

As is natural for any living organism on earth, honey bees also have some natural enemies. The bee colonies have to be protected from ants, wax moths, wasps, lizards, bears etc. by keeping a constant watch on each box. The boxes should also be kept away from hot sun, strong winds and heavy rains.

Pesticides applied in cardamom plantations in the recent past have become detrimental to the bee colonies. As most of the bees visit the plants early in the morning and take rest in the colonies as the sun becomes hot, application of pesticides can be taken up in the morning preferably after 11 A.M. Selection of less poisonous and selective pesticides is suggested as an alternative for reducing the harmful effects of pesticide poisoning on bee colonies. Provision of alternate food in colonies and shielding boxes with suitable nets while pesticide application is in progress are also suggested to reduce bee poisoning during such operations. Discouraging indiscriminate use of pesticides

at high concentrations and at very frequent intervals will go a longway in maintaining a reasonably good bee population in all cardamom plantations.

#### PROSPECTS:

India has 91,500 hectares of cardamom plantation spread over the States of Kerala, Karnataka and Tamilnadu. Taking 5 colonies of honey bees on an average as a satisfactory strength per hectare of cardamom plantation, we require a total of 4,57,500 bee colonies. The average annual production of honey from a bee colony is worked out to be 5 kgs. on an all India basis. Production from cardamom plantations will definitely be much more. At the present market rate of Rs.10/-per kg. of honey, the annual income from a colony will be a minimum of Rs 50/-and from a hectare of plantation about Rs.250/-. This is in addition to the increase in production of cardamom, exact figures of which are yet to be worked out. The results of trials conducted at the Central Bee Research institute, Pune have shown additional production as a result of bee pollination ranging from 25-700% in various crops. Planters keeping bee colonies in cardamom plantations also share similar views though definite data are not available with them.

In the light of detailed studies undertaken in India and outside, and considering the vast potentialities of rearing bee colonies in cardamom plantations areas, there is no room for doubt as to the additional advantage of introducing bee keeping in cardamom plantations in a big way. The Cardamom Board has already

initiated trials on the role of honey bees in increasing cardamom production. It is too early to predict anything from the data collected so far. But present indications are that bee colonies in cardamom plantations can definitely increase cardamom production. Considering the additional income derived from the sale of honey and beeswax and the employment opportunities generated by the bee keeping industry, we have to mobilise all resources to develop this industry throughout the cardamom plantation areas. □

---

## High-Yielding Honey-Bees

Italian bees, belonging to the species *Apis mellifera*, are doing very well at the Apis Research Station, Nagrota under the Himachal Pradesh Agricultural University.

A hive of this bee is reported to yield 12kg of honey per season—four times as much as the local breeds. The maximum yield recorded has been 35 kgs.

Larger in size than the Indian species, the Italian bees are more active covering one and half times more area than the locals and collecting more honey. Bee-keepers of Himachal Pradesh are enthusiastic in rearing this improved type.

Every year large number of colonies of Italian bees are sold by the Horticulture and Agriculture departments of this hill State.

---



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.

- Area under Cardamom

225 Hects.

Pasuparai Estate  
Pasuparai P. O.  
Elappara

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

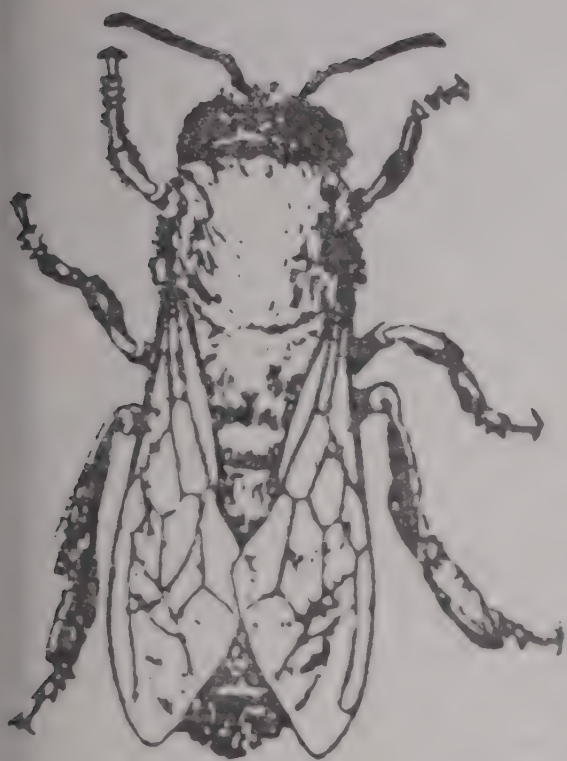
Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.





QUEEN

Increasing the production of cardamom has gained more importance in these days than ever before due to the soaring demand for this commodity from the traditional as well as non-traditional markets. The present world production of cardamom is

external agency is essential to effect pollination.

#### WHY HONEY BEES

Here comes the role of insects as a pollinating agent. When one thinks of insects, only those doing damage to mankind come to our mind. But one should not hasten to conclude that there is nothing good in or by insects and that they are all creatures always a harm or nuisance. This is largely not so. Certain insect species are beneficial to mankind. The much valued shellac, silk and honey are produced or elaborated by insects which are called productive insects. Those insects helping in pollination of crops, in killing harmful pests and weeds etc. are called helpful insects. They are honey bees, silk worms etc. Of the many species of insects, honey bees are known to be the main pollinator of fruits and seed crops. It has been claimed that the value



DRONE

of bees in pollination of crops is 10 to 20 times the value of honey and wax they produce. Certain crops like apples, alfalfa and cloves almost entirely depend upon bees for pollination. Even among some regularly self-pollinated crops the yield is considerably increased after the visit of bees.

## ROLE OF HONEY BEES IN INCREASING THE PRODUCTION OF CARDAMOM

—C. P. SALEEM

estimated at 5550 tonnes of which India's share is 4000 tonnes. However, there is a felt need for increasing the production. This aspect is now gaining more attention of all those interested in the cardamom plantation industry. A production of 4500 tonnes is expected during 1979-80.

How to increase production? Various methods are in vogue. One of the most natural process is to increase the fruitset through pollination. Since cardamom is a plant producing bisexual flowers in which the stigma is placed a little above the stamen, some



WORKER

self-pollination in cardamom is comparatively less. 75% of cardamom flowers is cross pollinated mainly by external agents. However the dominant pollinating agent is bees. It is estimated that 25-30% of the loss in crop is due to improper pollination and setting of fruits. Two bee-hives per acre will be sufficient for good pollination in cardamom plantations. The bee-hives may be positioned in the middle or around the plantations. Various shade trees like Red Cedar, pali, Karuna etc. are found to provide abundant



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N.	P.	K.
40 (38)	80 (40)	80



For Particulars

## T. STANES & COMPANY LIMITED

### AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 335 8

OR

### Our FACTORIES and Branches:

- |    |                         |            |
|----|-------------------------|------------|
| 1. | Avaniapuram (Madurai    | — 625 012) |
| 2. | Ettumanoor (Kottayam    | — 686 631) |
| 3. | Calicut (Malabar        | — 673 004) |
| 4. | Kanimgalam (Trichur     | — 680 007) |
| 5. | Mangalore (South Kanara | — 575 006) |
| 6. | Palghat (Kerala         | — 678 001) |
| 7. | Shimoga (Karnataka      | — 577 201) |



quantity of pollen for the bees throughout the year.

While locating an apiary, the following points may be noted:

Locate it where there is abundance of nectar and pollen yielding plants. In the case of cardamom plantation, there are many flowering shade trees that yield nectar and pollen. Site should not be exposed to strong winds. It should be flat with good drainage facilities. The site should be free from black ants and other infestations.

Of the different varieties of honey bees, the ordinary bee is considered to be the most suitable pollinator and convenient to be popularised in bee-hives. In a bee colony of average size there may be about 20,000 to 30,000 bees consisting of a queen and a few hundred drones and the remaining workers accounting to 90% of the population. Queen is the functional female of the colony. Her function is reproduction. Drone is the functional male. The three forms, Queen, Drone and Worker are quite distinct and the queen as well as the worker survive the winter. The bodies of the workers are covered with plumose hairs for retaining pollen and the hind legs carry pollen in specially adapted pollen baskets. The mouth-parts are modified for sucking nectar and a tongue is developed from the labium. Each colony has a particular odour by which the worker distinguish their hive on return from foraging. A worker is thought to be able to communicate both the direction and distance of the source of food to other workers in the hive by means of a dance on the combs.

## STRONG SOCIAL SENSE

A colony of honey bees is a family in which the association between the three castes for common benefit is so highly organised and their activities so efficiently co-ordinated that the individuality of the single bee becomes merged with the complex social organisation. Certain other factors also help them lead a successful social life. It has a single queen; each individual has to work for the mutual benefit; they have a hive mind and a hive odour peculiar to each hive; the habit of storing food in the comb for long period also helps the family life. Thus totally there is a co-ordination of activities.

## BOARD'S ROLE

Considering the potential of honey bees in increasing the production of cardamom through cross pollination, the Cardamom Board has chalked out an elaborate programme for establishing bee-hives in the plantations.

Even though bee-keeping in cardamom plantations has not reached any appreciable level in our country, it may be mentioned here that much headway has been made in this field in certain areas like Nedumkandam, Kalkothal etc. Board's offices in these areas have been able to distribute about 100 bee-hives each. The planters were made aware of the advantages of bee-keeping by conducting discussions and study classes through the grower's club. They had no difficulty in getting the assistance of the Khadi and Village Industries Commission in making people aware of the various aspects of bee-keeping and how it will help

## Bee keeping in India

The earliest method of bee keeping in our country was to use hollowed out tree trunks, empty pots or other receptacles smeared with wax and sweet scented leaves of cinnamon on the inner surface. They were kept in jungles to entice the bees during swarming season. When the bees had settled there, these receptacles were carried to desired places.

Scientific work on bee-keeping started in 1907 when the then Imperial Entomologist at Pusa Institute initiated work on Indian and Italian bees.

In 1919 Rev. Fr Newton of Thiruchirappalli developed a hive with movable frames. In a decade he had successfully maintained a few hives at Shentragram and in Kodaikanal and in Kanyakumari Districts.

The Industry made rapid strides of growth during 1875 to First World War. During this period honey fetched high price due to shortage of sugar, a boom that provided full time employment to many.

The industry had to face a depression during the 1930's. It was during this period that the co-operative institutions emerged on the scene and gave a helping hand. The industry again prospered during Second World War due to demand for bees wax and honey in place of wax and cane sugar which became scarce.

—C. P. S.



# The king of spices deserves the king of fertilizers



Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



pollination thereby increasing the crop.

In the initial stages the major problem was to make the planters interested in bee-keeping. Later it became one of availability and up-keep of the bee-hives. However, enough boxes were made available at reasonable rates through the Khadi and Village Industries Commission, Kottayam. Now about 30 planters in Pambadumpara and 25 in Nedumkandam villages have started bee-keeping on a commercial basis mainly with the intention of increasing the yield.

At a meeting with the Field Officer, Nedumkandam, it was given to understand that the maintenance of the colonies was a problem for the planters who were not skilled in bee-keeping in the initial stages. However, they have solved this by employing skilled workers through the Grower's Club.

## EFFECT OF PESTICIDES

One of the major problems threatening the existence of bee colonies in plantations is the application of pesticides to fight the various pests. As a result, the whole colony disappears from the cardamom plantations. There are hazardous as well as non-hazardous pesticides. The only way out to save the bees and at the same time control the pests is by applying non-hazardous pesticides, like ZOLONE (phosolon) ekalux, nuvacron, toxaphen, endosulphan etc. Systemics like phosphomedon, monochrotophos, dicrotophos, phenitrothion etc. are known to be hazardous chemicals. It was noticed that those bees that fed on the flowers sprayed or dusted with

such pesticides died out of poisoning. The bees in the hive do not allow other bees with a different odour other than their hive odour to enter the box and kill them at the entrance.

In order to save the bees a few methods are suggested. Since bee activity takes place in the early hours of the morning, spraying and dusting can be restricted to certain hours after the bee activity. However, this may not be practicable in large plantations. The planters and workers should be well informed of the need for undertaking spraying etc. at the stipulated hour only. Another suggestion is to plug the bee hole and close it for the particular day on which spraying is undertaken. Honey bees can withstand upto three days of confinement. Addition of suitable oils to spray mixtures ensures safety to honey bees as the spray residues are more lightly sorbed to plant surfaces and are less easily picked by the bees than powders. Plastic or latex resins may also be added to sprays to make them safer.

## IMPRESSIONS OF A LARGE GROWER:

Mr. Jose of Ottaplackal Estate, Kumily could not notice any improvement in crop as a result of bee keeping in his estate. He took to bee-keeping in his 80 acre cardamom plantations about 14 years back. To start with he had 160 bee hives. Now he has only 40 bee hives. Mr. Jose says that most of the colonies have escaped to other places as a result of dusting of pesticides. He is of the opinion that bee-keeping cannot be taken up at the expense of the total crop. He also said

## A Little History

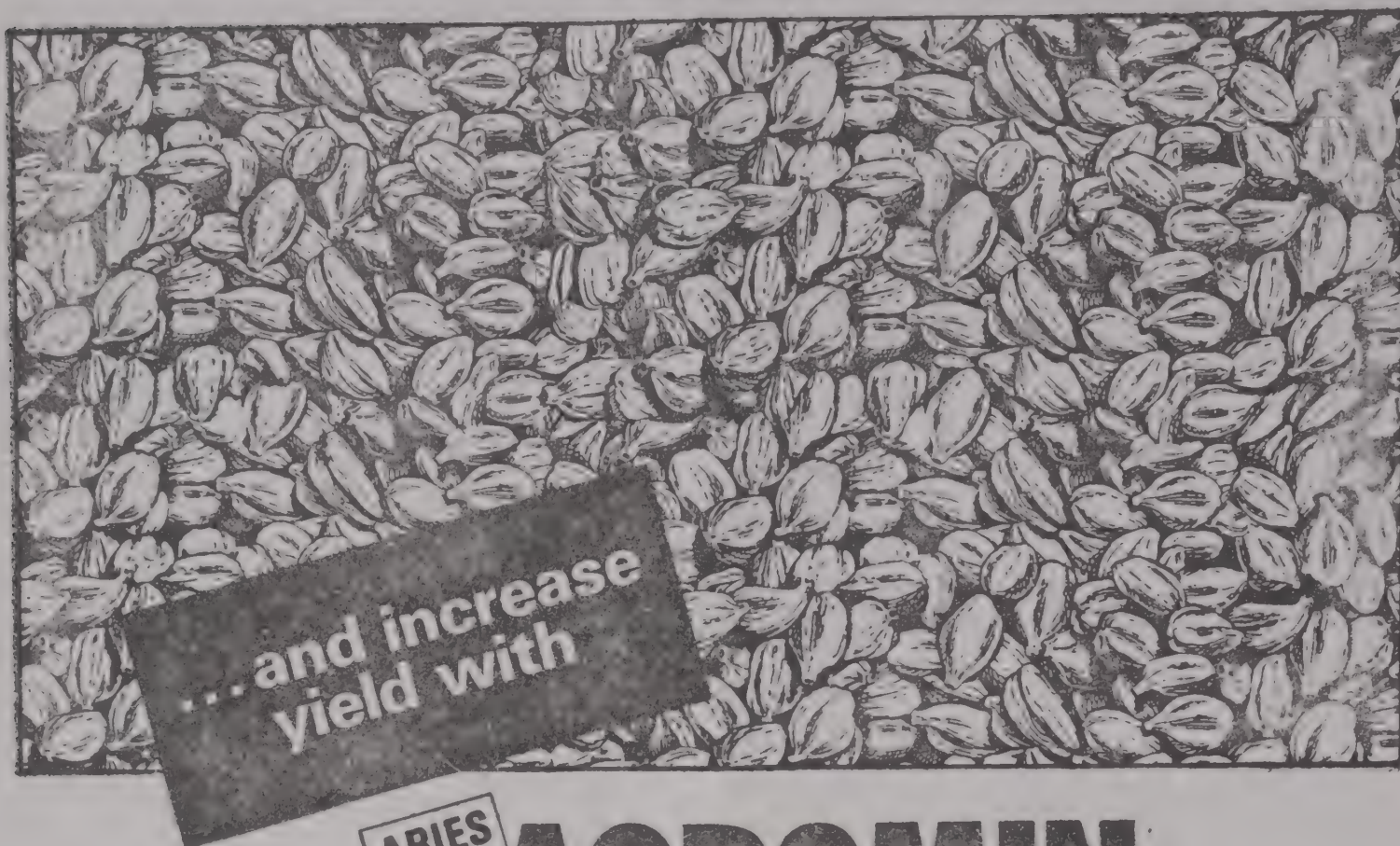
Man had known that honey is delicious, sweet, and nutritious food long before he heard of bee-keeping. There is mention of honey as sweet food in Ramayana, Mahabharatha, Vedas, Upanishads and Puranas. Honey was used in religious rites from ancient times. Its uses are amply illustrated in Ayurveda works like Sushruta Samhitha by Sushruta and Ashtanga Hridhayam by Vagbatta.

Figures, drawing, carvings etc. of honey bee and its comb are said to have appeared on the coffers, tombs and crowns of Egyptian Kings and on the imperial robes of Napoleon. Prophet Mohammad advised his followers to use honey for various ailments. Hippocrates, Pliny and others have advocated the use of bee tea prepared from burnt bees as a cure for kidney trouble and also as a stimulant for growth of hair.

Migratory bee-keeping which is well known today originated in Egypt. The earliest method in the West was to cut down logs of wood tenanted by bees and keep wherever desired. The next advancement was rearing the bees in crude boxes with few cross sticks. later conical, bell shaped earthenware were in vogue. These primitive methods continued till 17th century when a hive with movable frame was designed in 1851. Rev L. C. Langs worth improved this one. The successful use of movable frames and discovery of bee space completely revolutionised the crude way and modern beehives came to be designed.



**Ensure adequate  
nutrient supply to your  
cardamom crop**



**ARIES**

# AGROMIN

**India's First Chelated Plant Nutrients**



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.

For details write to:  
The Agricultural Adviser



**ARIES AGRO-VET INDUSTRIES PVT. LTD.**  
P.O. Box 9417, Bombay 400 093

**Aries AGROMIN chelated plant nutrients increase crop yield economically**



dusting cannot be skipped for the sake of bees because this will result in increase of thrips and other pests ultimately leading to considerable loss in quality of the produce. Further, the profit out of honey when compared to the actual profit from good cardamom is very negligible.

When enquired about the possibility of adjusting the timing of spraying, dusting etc., Mr. Jose said that such methods can be practiced only in the wake of solid results from research. Here he urged the need for undertaking research on bee-keeping and also finding out pesticides that will be less hazardous to the bees and at the same time quite effective in controlling pests and diseases.

#### EXPERIENCE OF A SMALL GROWER

On the other hand, Mr. Mathunny of Vayalumthalakkal Estate, Amaravathy, Kumily seemed most optimistic about the effect of bee-keeping in cardamom plantations. He was of the opinion that as a result of cross-pollination by the bees the fruitset of cardamom in his estate has increased and the capsules were more bolder and larger in number too.

Mr. Mathunny is a young enterprising planter who settled in Amaravathy about 10 years back. When he first came to this area, the whole place was only grassy land. One by one he tried tapioca, paddy etc. and ultimately ended up with pepper and cardamom. Now he has made a real haven of the whole place with his intercrop of pepper and cardamom. The beaming smile on his

face revealed that his family had a happy life and an appreciable income from their produce.

Mr. Mathunny has about 10 bee-hives. On an average a bee-hive will yield about 20 kgs. of honey in the season and that sounds good income. During the season 1 kg. of honey will fetch Rs.10/-. He explained that dusting is one of the major problems confronting the bee-keeping industry. He wants Cardamom Board to come out with some solution and help the growers.

#### RESEARCH AT PAMPADUMPARA.

The Regional Station of the Bee Research Institute, Kodaikanal had conducted some research on bee-keeping in co-operation with the Cardamom Research Station at Pampadumpara in order to assess how the bees help pollination. Comparative studies were also made on the time of bee activity, whether there were any other agents acting as pollinators and the role of bees in fruit setting, size of the capsule etc. The studies revealed that fruitset due to bees was 42.2%, open-pollinated fruits were 39.2% and self-pollinated fruits were 6.6%.

#### RESEARCH AT MUDIGERE

Observations at the Mudigere Regional Research Station revealed that the bees play an important role in effecting pollination. It was also observed that when a bee visits the flower in a particular plant, it does not move to the next plant unless it completes the visit to almost all the flowers in that particular plant. The observation revealed that the percentage of pollination effected by bees, ants and flies were 92%, 5% and 3% respectively.

#### ROLE OF INDIAN CARDAMOM RESEARCH INSTITUTE

The Board's Research Station at Myladumpara is having about 120 acres of farm attached to it. A large apiculture centre is being established here to conduct research on various aspects of bee-keeping.

#### USES OF HONEY

Honey is a readily assimilable energy giving food. It is the first food of the new born. Its by-product bees wax is used in the manufacture of cosmetics, cream, lipsticks, lubricants etc. Believe it or not, 1 kg. of honey is estimated to be equivalent to 5 kgs. of milk, 40 oranges and 50 eggs.

All said and done, honey is only secondary to the planter, pollination is the main thing.

#### Reference:

1. Elements of Economic Entomology-B.Vasantharaj David. Kumaresan
2. Pests of Field Crops-F. G. M. Jones; M. G. Jones

---

### World Bank Appreciates Agricultural Priority

The World Bank has concurred with the priority accorded by the Government of India to agricultural development. This was conveyed recently in New Delhi by the Vice-president of the World Bank Dr. W. D. Hopper to the Deputy Prime Minister and the Minister of Finance, Mr. Charan Singh

---



**VOLTAS**

# zolone

Insecticide-cum-Acaricide



puts extra power  
in your hands  
to protect your  
cardamom.



Harmless to bees,  
parasites and  
predators of crop pests



Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- \* Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- \* Has a local penetration action, so is also effective against sucking pests.
- \* Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- \* Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- \* Recommended as part of integrated pest control programmes.
- \* Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by

**VOLRHO LIMITED**

Secunderabad 500 003

Marketed by

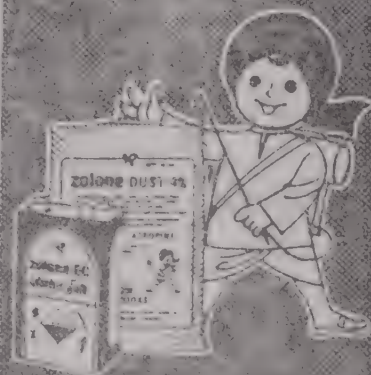
**VOLTAS LIMITED**

Agro-Industrial Products Division

Bombay • Calcutta • Madras

New Delhi • Bangalore • Ahmedabad

Secunderabad • Cochin • Bhopal.





## PRODUCTION

Production of cardamom for 1978-79 season is estimated as 4000 M.T. with state-wise break-up as:

Kerala	: 2900 M. T.
Tamilnadu	: 300 M. T.
Karnataka	: 800 M. T.
<b>TOTAL</b>	<b>: 4000 M. T.</b>

A very preliminary estimate of production based on current field observation for 1979-80 crop season is placed at 4500 M. T.

## AUCTION SALES & PRICES

The position of State-wise auction sales and weighted average prices for May 1979 and the cumulative position during 1978-79 season with comparative position for the previous season are given in the following table:

State	May 1979		May 1978		Aug-May 1979		Aug-May 1978	
	Qty. (M.T.)	Av. Price (Rs./Kg.)	Qty. (M.T.)	Av. Price (Rs./Kg.)	Qty. (M.T.)	Av. Price (Rs./Kg.)	Qty. (M.T.)	Av. Price (Rs./Kg.)
Kerala	...	...	...	...	2416	178.71	2300	142.55
Tamilnadu	21	125.91	12	126.67	200	137.99	149	116.48
Karnataka	39	131.32	13	127.79	683	133.77	537	104.76
<b>Total :</b>	<b>60</b>	<b>129.41</b>	<b>25</b>	<b>126.32</b>	<b>3299</b>	<b>166.94</b>	<b>2986</b>	<b>134.45</b>

During the current season auction sales in Kerala were practically over by the end of March 1979 itself. The auction sales in Kerala have considerably increased during the current season and in Karnataka and Tamilnadu also the higher trend in sales continued. The cumulative position of sales and prices during 1978-79 is much better than that of previous year. The highest average price recorded at Vandanmettu auction during the current season was Rs 210.90 per kg and that was in October 1978 as against Rs. 169.93 per kg. fetched in December 1977

during the previous season. The centre-wise sales and prices of cardamom in Kerala, Tamilnadu and Karnataka are given elsewhere.

## EXPORTS

Export of cardamom during May 1979 was 166 M.T. valued at Rs.3.21 crores as per the reports received from the Customs Authorities based on shipping bills passed and cess/duty collected. We have received so far the details of 59 M.T. valued at

Rs. 169.19 per Kg. during April and May 1978. Both quantity and earnings have shown an increasing trend compared to previous year. Based on this trend export during the off-season period April-August 1979 is estimated to exceed 600 M.T. earning Rs. 11 to 12 crores.

## ANTICIPATED PRODUCTION AND EXPORT FOR 1979-80

Based on the present field observation, the crop for 1979-80 is roughly estimated as 4500 M.T. This could even go upto 5000

Rs.1.11 crores from the exporters. Exporters have been reminded to send the details of the remaining 107 M.T. Export during May 1978 was 175 M.T. valued at Rs. 2.95 crores. The unit value of export of cardamom realised during May 1979 was Rs. 192.98 per kg. as against Rs. 167.85 per kg during May 1978.

As per shipping bills passed by the Customs Authorities export of cardamom during April and May 1979 totalled to 412 M.T. valued at Rs. 7.87 crores with unit value of Rs.191.22 per kg. as against 396 M. T. valued at Rs. 6.69 crores with unit value of

M.T. A realistic picture of crop position for the season can be arrived at in the next month only.

## EXPORT

The provisional export target for 1979-80 is placed at 3200 M.T. with an earning of Rs. 65 crores. If production goes upto the level of 5000 M.T. export may also go upto 3500 M.T. with an earning of Rs. 70 crores. However the increasing trend in price may not be a permanent phenomenon considering the supplies from other producing countries also at cheaper rates. Hence the average export price anticipated for 1979-80 is Rs. 200/-per kg.





### **CYTHION**

For complete livestock and poultry protection against insects and related pests.

Pest infested animals can mean only one thing —

No profitability.

But now Cythion can give your livestock and poultry a fighting chance to live healthy, pest-free lives.

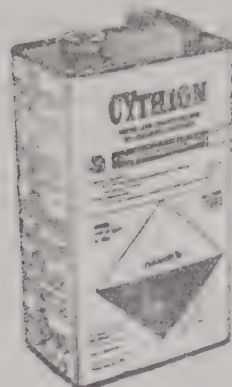
A low hazard insecticide, safe to handle and economical to use.

Used on and around animals,

**Cythion**

harm being done to them.

**Cythion**. From Cyanamid.



### **CYTHION**

Offers effective control against 100 different pests attacking 90 different crops.

Insect pests can cause havoc on your grain crops.

And your profitability.

Now give your crops effective pest control treatment.

With **Cythion**.

A low hazard, powerful insecticide **Cythion** kills on contact. Prevents untold damage being done to your crops.

Safe, efficient, economical **Cythion** can be applied 1-3 days before harvesting, leaving no harmful residue in the fully matured crops.

**Cythion**. From Cyanamid.

### **CYTHION** Also

controls over 75 different pests attacking 50 different vegetable and fruit crops.

When your vegetable and fruit crops are endangered by pests and insects there is only one solution.

**Cythion**.

A low hazard, powerful insecticide **Cythion** kills on contact. Prevents untold damage.

**Cythion** can be applied 1-3 days before harvesting, without leaving any harmful residue.

**Cythion**. From Cyanamid.

**CYTHION**  
INSECTICIDE  
MALATHION

CYANAMID

the name every farmer trusts

Cyanamid India Limited,  
Agricultural Division,  
P. O. Box No. 9109, Bombay 400 025

\* Registered trademark of American Cyanamid Company, Wayne, New Jersey, U.S.A.



# AUCTION ARRIVALS OF CARDAMOM

Centre	MAY 1979			MAY 1978			AUGUST-MAY 1979			AUGUST-MAY 1978		
	Qty. sold (kgs.)	Max. price (Rs./kg.)	Av. price (Rs./kg.)	Qty. sold (kgs.)	Max. price (Rs./kg.)	Av. price (Rs./kg.)	Qty. sold (kgs.)	Max. price (Rs./kg.)	Av. price (Rs./kg.)	Qty. sold (kgs.)	Max. price (Rs./kg.)	Av. price (Rs./kg.)
<b>KERALA</b>												
Vandanmettu	—	—	—	—	—	—	1593040	260.00	183.07	1839232	252.10	146.21
Santhampara	—	—	—	—	—	—	462698	230.20	170.40	198290	210.10	126.82
Udumbanchola	—	—	—	—	—	—	106700	220.0	172.87	114811	210.10	137.23
Kallar	—	—	—	—	—	—	159287	226.50	164.91	116607	168.90	120.66
Cochin	—	—	—	—	—	—	26690	235.10	171.92	31506	185.90	128.35
Parathode	—	—	—	—	—	—	68160	217.50	177.32	—	—	—
Total (Kerala)	—	—	—	—	—	—	2416575	260.00	178.71	2300446	252.10	142.55
<b>TAMILNADU</b>												
Pattiveeranpatty	17785	209.00	130.61	11656	183.50	126.67	171440	230.00	141.35	148940	200.00	116.48
Bodinayakanur	3625	149.10	102.88	—	—	—	29046	195.50	118.13	—	—	—
Total (Tamilnadu)	21410	209.00	125.91	11656	183.50	126.67	200486	230.00	137.99	148940	200.00	116.48
<b>KARNATAKA</b>												
Mercara	—	—	—	867	137.00	132.03	23697	186.00	143.67	74676	150.00	97.21
Mangalore	8239	170.00	136.00	68	132.00	109.02	80848	175.50	140.09	45101	155.50	118.19
Saklespur	2749	164.70	130.77	11179	165.00	128.34	538932	261.20	132.82	413292	206.00	104.66
Sirsi	1156	141.25	119.23	1037	130.88	119.56	9767	161.55	126.76	3991	129.75	104.39
Mudigere	2419	165.00	127.41	—	—	—	29463	201.10	128.09	—	—	—
Total (Karnataka)	39313	170.00	131.32	13151	165.00	127.79	682707	261.20	133.77	537060	206.00	104.76
Grand Total (India)	60723	209.00	129.41	24807	183.50	126.32	3299768	261.20	166.94	2986446	252.10	134.45

Source: Reports received from licensed cardamom auctioneers.



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

**COIR PRODUCTS -** Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

SECRETARY, COIR BOARD, COCHIN-682016 (KERALA)

OR

VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:

1. NEW DELHI:	16A, Asar Ali Road	Tel: No. 271388
2. BOMBAY :	5, Stadium House, Churchgate	.. 295212
3. CALCUTTA :	22 Loudon Street.	.. 445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	.. 51216
5. MADRAS :	1/155, Mount Road	.. 85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	.. 35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	.. 25753
8. BHUBANESWAR :	No. 17, Janpath, Badajee Nagar	.. 50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	.. 25505
10. PATNA :	Biscomaun Bhawan, West Lawn	
11. HYDERABAD:	5-8-328, Chapel Road, Hyderabad-500 001	.. 36276
12. JAMMU :	Gumat Bazar, Jammu Tawi	

or

ANY OF OUR ACCREDITED DEALERS



## TRADE ENQUIRIES FOR CARDAMOM

Name & address	Grade required	Port of Destination	Name & address	Commodity
1. Askia Syracuse. P. O. Box 205, Syracuse, New York 13210 Cable: ASKIA, Telephone: 315-478	Cardamom-AB white Cardamom-AGS Cardamom-AGS 1 Cardamom-AGB	Jeddah Kuwait Doha Qatar	1. Al Abeer Trading Est., P. O. Box No. 25669, Safat, KUWAIT.	Spices
2. Abu Eishah Bros. Trading Co., General Merchant, H. K. of Jordan, P. O. Box 7950, Amman, JORDAN. Cable: ABU EISAEH Telephone: 23661-39661 Telex: 1516 ABTRAC	Green Cardamom Bleached Cardamom	7342	2. Fahaheel Grand Modern & Mill, P. O. Box 7231, Fahaheel, KUWAIT.	Spices
3. United States Orient Agencies Inc., 110 West 40th Street New York, N.Y. 10018 Cable: ORIENTUSA NY.			3. Gorrat Al Kuwait Trading Co., P. O. Box 1549, Safat, KUWAIT.	Spices
			4. Hassan & Malik Trading & Contracting Co. P. O. Box 2991, KUWAIT.	Spices & Cardamom
			5. RA. MHD. International Co., 6. Aly Shaker El Roby Street, Tryoumph, Heliopolis, Cairo, ARE. (Egypt) Telephone: 860 274	Spices & Cardamom

## CULTIVATION OPERATIONS

**JULY**

	South-West Monsoon areas (Kerala-Tamilnadu)	North-East Monsoon areas (Tamilnadu)	South-West Monsoon areas (Karnataka)
Primary Nursery	Uprooting of seedlings for transplanting to secondary nursery beds.	Weeding. Repair and maintenance of beds, pandals etc. watering if necessary.	Routine maintenance of the left-over seedlings.
Secondary Nursery	Uprooting seedlings for transplanting to field. Transplanting to the newly-formed secondary beds of seedlings uprooted from primary beds followed by mulching with dried leaves or grass.	Watering if required. Mulching. Routine up-keep. Uprooting well-grown secondary seedlings for planting in field, if weather permits.	Uprooting of seedlings for planting continued if weather permits.
Starting of New Plantations	Planting shade trees according to necessity continued. Planting seedlings up-rooted from secondary nursery, staking them, mulching the base of the plants. First round weeding.	Planting, mulching and staking continued depending on receipt of rains. Manuring of last years new planted areas.	Planting of seedlings, mulching and staking continued if weather permits. Maintenance of drains.
Maintenance of Plantations	Thrips control. Filling up of gaps caused due to removal of katte-affected plants or due to drought, falling of trees etc. Planting shade trees wherever necessary.	Gap filling First round weeding, mulching and earthing up, continued. Thrips control	Watch and Ward. Drainage maintenance.



With the best compliments from:-

## **M/S. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No. 41

With the best compliments from -

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No. 11



## NEWS AND NOTES

### Record Agricultural Production

India is poised for reaping another record harvest during 1978-79 crop year, despite an estimated loss of about three million tonnes of foodgrains due to unprecedented floods in most parts of Northern India.

According to preliminary assessment, the overall foodgrains production of 1978-79 is likely to exceed the 1977-78 level of 125.6 million tonnes. The outlook for commercial crops also is more encouraging. The Annual Report of the Union Department of Agriculture for 1978-79 indicates that the target of 2.8 million ha. of additional irrigation (1.45 million ha. by minor irrigation alone) is likely to be achieved and the target of fertiliser consumption of 5 million tonnes of nutrients exceeded.

### Additional Charge on Shipments Withdrawn

It is reported that the West Coast of India/ West Asia (Gulf) Conference have agreed to withdraw the additional charge of \$ 2.5 per ton being levied on shipments from Cochin to West Asia (Gulf) destinations.

It may be remembered that the Conference had earlier agreed to grant 10% deferred rebate on shipments from Cochin with effect from 1-11-1978.

### Board Gives Educational Stipend

Applications in prescribed form are invited from the workers employed in cardamom plantation industry in Kerala, Tamilnadu and Karnataka for the award of educational stipends to their children studying in Vth Standard and above for the academic year 1979-80. Application form and

other details can be had from the Secretary, Cardamom Board, Cochin—682018, Board's Field Offices, educational institutions and labour union offices in the cardamom tracts. The filled in application forms should reach the Board on or before 15th July 1979.

### Registration of Cardamom Estates in Tamilnadu

Consequent on a request from the Cardamom Board, the Government of Tamilnadu have extended the time limit for the registration of cardamom plantations in Tamilnadu up to 31st August 1979. Those who have not yet registered their estates so far are requested to utilise this opportunity to register their estates with the officers concerned.

The Government has also categorically stated that under no circumstance the time limit would be further extended in future.

## CENTRAL BANK OF INDIA

Madras Regional Office

159, GREAMS ROAD, MADRAS 600 006

### CARDAMOM PLANTERS!

You can avail of prompt and liberal financial assistance for development and maintenance of your plantations.

Please contact the nearest Branch for details.



The Bank that moves out to people and places



Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

## TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

Factories at :

- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. KONUR   |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.

### A TRUE FRIEND OF THE FARMERS **AIMCO**

Use AIMCO'S powerful pesticides:  
OMBI EC • TOXATHION • ENDOSOL  
ENDOSOLFAN 35EC • D.D.T. 50%  
MALATHION • CARBARIL 10% and  
50% • PARATHION AND ALSO  
URMOCEL (for well planned growth and  
protection), DHARTI-POSHAK (Micro  
Nutrients); to protect your crop

AIMCO PRODUCTS



Write for details, distributorship and retailing to

**ALL INDIA MEDICAL CORPORATION**

15, PRINCESS STREET, BOMBAY 400 002

B.No:2398,GRAMS:PARAVION,PHONE:315390



"We also manufacture Dharti Poshak (Micro Nutrient), Aluminium Phosphide Tablets, Zinc Phosphide, Fenitrothion 50% EC, Trichlorofon 5% Dust, Zineb 75% WDP, 2-4-D 80% Sodium Salt, Copper Oxychloride 50% WDP, Toxathion EC & Toxathion Dust, Dimethoate EC, Sulphur Dust, Malathion Oil, Methyl Parathion 2% Dust and 50% EC. Household Insecticide New Tox-5, D.D.V.P. 76%, and Aldrin 30% EC.



# GANDHI SONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONOR,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHI SONS

'GANDHI BUILDING'  
232, Samuel Street  
BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



Phone: 23

Established in 1959

Gram: ELAKAY

# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.  
Kerala, India.



The best and foremost cardamom auctioning  
establishment in India.

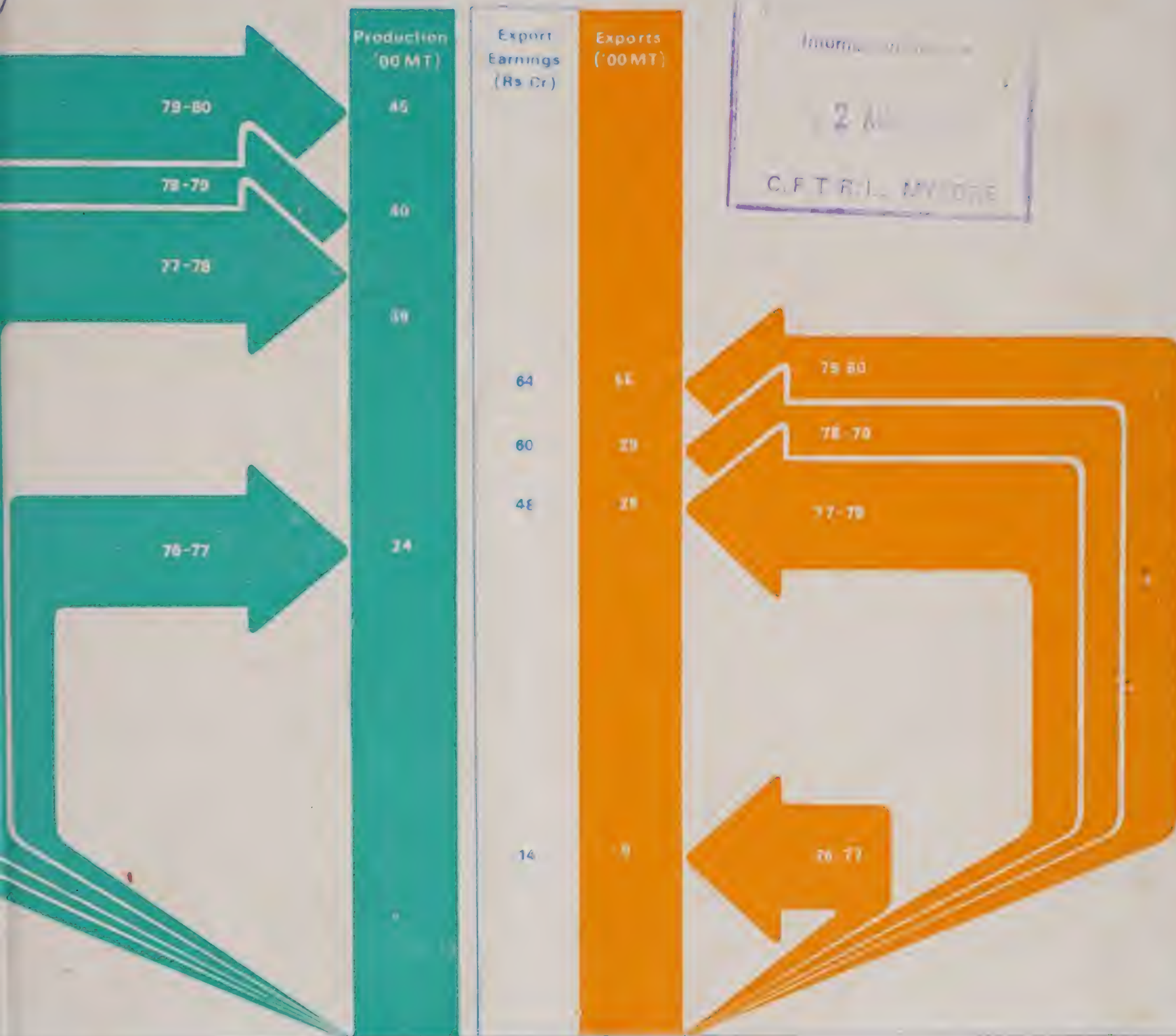
**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Select on of all qualities of cardamom possible  
and any quantity of cardamom available.

We handle more than 60% of the cardamom produced in  
Kerala securing the highest prices.



# Cardamom





*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**  
**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

*WINNERS*

**'CERTIFICATE OF MERIT'**  
**FOR THEIR MERITORIOUS EXPORT PERFORMANCE**  
**IN CARDAMOMS FOR THE YEAR 1971-72**  
**FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



## CARDAMOM BOARD

Chairman: S. G. SUNDARAM I. A. S.

Director: K. V. GEORGE

Secretary: K. G. NAYAR

### "CARDAMOM"

Readers are invited to share their experiences in the cardamom plantation industry through 'Cardamom'. Articles and set-ups on achievements, failures and success stories etc. related to all aspects of the plantation industry along with photographs if any, may be sent to us for consideration. Selected materials will suitably paid for.

*Chief Editor*

K. R. KURUP

*Editor*

C. P. SALEEM

## CARDAMOM BOARD

P. B. No. 1909

ANERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

TELEPHONE : 33837, 33209

TELEX : 885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

Vol. II

JULY 1979

No. 5

### *in this issue*

Editorial	2
Better yield through scientific manuring —C. P. Saleem	3
Market for cardamom—Finland	7
Market research / Development programmes	21
News and notes	27
Cultivation operations	31

### ON THE COVER

HEIGHTS OF GLORY—the cover depicts the mammoth strides made by the Indian cardamom plantation industry during the last few years. It is estimated that production, export and export earnings during 1979-80 would be 4500 M. T., 3200 M. T. and 64 crores respectively.



## BETTER PRICE FOR KARNATAKA CARDAMOM

Out of 34 grades of cardamom under 'Agmark' only about a dozen have commercial importance in the export market. Out of these, six grades are from Alleppey Green variety. Among Coorg Green varieties, only three grades have export market. If we analyse the grade-wise export figures of cardamom for the last few years, it can be seen that the major markets in the Gulf area have always preferred Alleppey Green cardamom over Coorg Green. The Arab countries also preferred bold varieties of Alleppey Green cardamom which is mainly produced in Kerala,

If we analyse the reasons for the low overseas demand for Karnataka cardamom, it can be seen that the absence of green colour is its main drawback. The Karnataka cardamom industry which contributes about 700 M.T. on an average to our national production, is largely dominated by the small growers. Small growers in Karnataka number around 8000 sharing within themselves 28000 hectares of cardamom lands. It is time for these growers to realise that the low price factor for their produce is largely dependent on the quality, mainly the colour. This in turn is to a great extent inter-connected with the harvesting, processing and storage.

Even now Karnataka growers mainly depend on sundrying, whereas artificial drying would give a better final product and a better price. Being small growers, they do not have the necessary crop capacity nor the financial ability to invest in standard curing houses and electric driers. It is possible for the small growers to circumvent this problem through organised movement. Co-operative Societies or such other organisations of the growers on a community basis can install electric driers etc. with the aid of the Cardamom Board.

Timely and proper harvesting also plays an important role in preserving the green colour. Over-ripe capsules may tend to split at the time of drying giving a yellowish colour whereas immature ones will shrink giving only low quality produce. Harvesting should be made systematic and only properly matured capsules should be picked. Spreading mulch materials over the panicles, too thick shade in the plantation etc. also tend to produce capsules having low intensity green colour. Proper attention should be paid in the matter of storage also. The green colour of the capsule will tend to fade when exposed to light. This can be prevented by using black polythene lined gunny bags for storing.

These are some of the problems the growers can solve without much extra expenditure. However, these aspects have a direct bearing on the internal and export marketing of cardamom. Adoption of a modern and scientific package of practices for cultivation, harvesting processing and storage will definitely improve the quality of Karnataka cardamom.

Besides, it has often been the experience of the small growers that they got a price much lower than the price paid by the consumer in India and abroad. Without much thinking one can understand that this is mainly due to the presence of a number of intermediary merchants. Formation of small Growers' Cardamom Co-operatives in different areas would be a welcome move to reduce the number of middlemen and to earn a better price for the produce.





P. R. SUKUMAR

Now situations have thoroughly changed. Incredible achievements have been impressed already in the annals of the cardamom plantation industry were it is in the matter of production, export, unit value realisation or export earnings. Production has crossed 4000 M.T and it has already contributed about Rs.60 crores to the national exchequer by way of export earnings during the last season. The industry is further poised for glorious achievements in the future as well.

All these were possible mainly due to the concerted efforts on

various aspects of cardamom plantation industry is of recent origin. In the matter of fertilizer application, various research organisations were giving different recommendations. Besides, some of the fertilizer manufacturing and mixing firms were also prescribing their own recommendations.

Realising the basic need for applying fertilizers to cardamom plantation on scientific lines, the Board started a Soil Testing Unit in its Head quarters in the year 1970. The function of the unit was to collect soil samples from different areas and

## BETTER YIELD THROUGH SCIENTIFIC MANURING

C. P. SALEEM

The tiny green spice called cardamom grown in the lush green forests of the high ranges now come to claim international acceptance holding sway especially over the barons of the petrodollars by its breathing aroma and colour. Her obvious flavour still captivates taste lovers throughout the world. Consequent on the boom in oil wealth in the Middle East, the price of this spice also has gone up considerably. That reminds one of the sordid state of the cardamom plantation industry in, a few decades ago when it fetched only very low price. In the absence of remunerative returns from the plantation, the planters left it to its own destiny, investing whatever they could, incurring only the lowest possible expenditure.

the part of each individual planter in consonance with the programmes laid out by the Cardamom Board from time to time. Naturally the Board can feel proud for its humble contributions in making the Indian Cardamom an internationally acclaimed commodity.

Some of the recent surveys conducted by the Board in the various cardamom markets have brought to light tremendous potentials for increased export of cardamom. In order to meet this soaring demand it is essential that our production should be increased. In this respect the need for increasing production through adoption of scientific cultural and plant protection practices is of prime importance. Organised research work on

also to analyse the samples received from planters. Fertilizer recommendations were given based on the soil test results. So far a good number of planters, especially small growers, have utilised this service of the Board.

Shri P.R. Sukumar of P.R.Estate, Kallar is one of those large number of small growers adopting scientific manuring based on the recommendations given by the Board. He is an enthusiastic planter who is largely drawn by the motive of increasing the crop through systematic approaches.

The P. R. Cardamom Estate is situated at Karadippara, 2 Km inside the Alwaye - Munnar Road. Entering into the plantation one can see lush growth of cardamom plants on all sides.



# **V. N. SURULIVEL NADAR & BROTHERS,**

**CARDAMOM EXPORTERS,  
BODINAYAKANUR, S. India**

Cables: 'DIAMOND' BODINAYAKANUR

Phone No Office: 232  
Residence: 255

**Leading Export House for Cardamoms with Representatives  
All Over the World**

**WINNERS OF AWARD FOR OUTSTANDING EXPORT PERFORMANCE IN 1969-70  
AND LARGEST EXPORTERS OF CARDAMOMS FROM INDIA IN 1969-70  
1970-71, 1973-74 and 1974-75**

**WINNERS OF SPECIAL CERTIFICATE OF MERIT FROM SPICES EXPORT PROMOTION  
COUNCIL FOR 1973-74, BEING LARGEST EXPORTERS**

## **Plantation Unit:**

- 1 THE VELLEMBILLERY ESTATE, MEPADI, Kerala State.
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, Kerala State
3. THE VELLARMALA CARDAMOM ESTATE, MEPPADI, Kerala State

## **Auction Unit:**

**M/s UNITED CARDAMOM AUCTIONEERS, SANTHANPARA, Kerala State**

## **Our Special Grades:**

- "CAMEL" Brand Handpicked Green Cardamoms
- "TAJ" Brand Superior Bold Cardamoms
- "DIAMOND" Brand Special Green Cardamoms

**ARE ALL WELL RENOWNED IN ALL ARABIAN COUNTRIES**

**Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to U. K., U. S. A., Continent, U. S. S. R.  
and East European Countries and Japan with a  
Reputation for Quality.**

**OUR MOTTO: GUARANTEED QUALITY AND STEADY PROGRESS**



estate has both old and re-  
ated areas. This estate with  
tal area of 30 acres was in-  
ted by him from his father  
is divided into small blocks  
facilitate better care and  
tion on each unit. Most of  
area is now being gradually  
anted and hence there is  
very limited yielding area  
. The replanted area is ex-  
ed to give yield from this  
on words.

s a preliminary to application  
recommended fertilizers, the  
in his plantation was first  
ed from Cardamom Board in  
5-76. The soil test revealed  
there was acute deficiency  
nitrogen, potash and phos-  
rous. Based on the Board's  
ommendation he started  
lying fertilizers from 1977.  
ar cultivation operations were  
carried out along with it.  
his day he has been follow-  
fertilizer application as re-  
mended by the Board. On  
her enquiry he disclosed that  
soil in his plantation was not  
ed in the Soil Testing Labor-  
y of the Board for fertilizer  
ommendations for the sub-  
uent years. Inaccessibility to  
Laboratory was pointed out  
one of the reasons why small  
ners like him could not make  
use of the facility

fertilizer was applied to all  
as of the plantation based on  
age of the plants. 'And what  
the effect?' 'Tremendous'  
this enterprising planter  
has dedicated himself to his  
plantation. There was significant  
improvement in plant growth.  
r the fertilizer application the  
es were well formed with a  
green colour and the plants  
bited new vigour. The number

of shoots and panicles increased  
too.

'Could you notice any improve-  
ment in yield?' 'Of course I did'.  
The yield in the old plantation  
area was just about 15 Kgs. But  
now it has increased to 25-  
30 Kgs. This would have been  
more than 40 Kgs. per acre but  
for the problem of fruitshedding.  
However, he feels that it is not  
yet time to predict anything  
about the actual effect of the  
scientific manuring in the  
repianted area which will start  
yielding only by this year. On  
the other hand there was another  
significant achievement due to  
manuring. Though he could not  
completely do away with fruit-  
shedding, it did not aggravate.

'What was the method of appli-  
cation of fertilizer?' 'Just  
simple', says our planter friend.  
'Even this has been charted out  
by the Board'. The fertilizer was  
applied around the plant about  
25-30 cms. away from the base  
in a circular band of 25-30 cms.  
width and was lightly forked in  
to mix with 1-2 inch depth of  
surface soil. After this the  
fertilized area was suitably  
mulched. He was particularly  
careful not to spread the mulch  
materials over the panicles.  
'Any digg ng?' 'Absolutely not'.

The fertilizer was given in two  
split dozes—half the doze in  
May-June after a few showers  
and the second during September  
October when there was a break  
in Monsoon. The fertilizer was  
broadcast in such a way that  
each mature plant received  
about 100-150 gms. at a time.  
During April 1978 and April  
1979 he applied Dolomite and  
lime respectively before the

application of fertilizer. This  
has given better response in  
plants possibly due to higher  
intake of the fertilizer applied.  
According to him he found  
Dolomite as a better liming  
material.

He had also tried foliar appli-  
cation of fertilizers. This was  
first tried in the replanted area  
in 1978. At that time the plants  
were not in the yielding stage.  
But still he could find better  
response in the plant. 'It was  
just superb'. During, this year  
instead of Zinc he tried some of  
the micronutrient fertilizers like  
Tracyl in the first round and  
Agromin in the second. However,  
he was not very much impressed  
with the results. He is of the  
feeling that of all micronutrient  
fertilizers only Zinc had any  
effect on fruit-shedding.

Though he is quite satisfied  
with the results of the fertilizer  
recommendation given by the  
Board in 1975-76 he now feels  
that the ratio of plant nutrients  
requires a change. Shri Sukumar  
is of the feeling that due to  
higher production received  
during the last two years the  
nutrient requirements of his  
plantation might be much more  
in the changed circumstances.  
Testing the soil from the plant-  
ation every year could have  
brought out the actual require-  
ments of plants.

when he was asked about this  
year's crop there was a beaming  
smile on his face followed by a  
nod of helplessness. Despite  
better care, scientific manuring  
and all other protective measures,  
the disastrous fruit-shedding con-  
tinued. In fact this is the main  
problem pestering all the plan-



ters now. No solid remedy has yet been found. He has left this problem to be solved by the agricultural scientists in the field. He was of the opinion that if this challenge could be successfully faced by our scientists the future would be much more bright. Our achievements in this regard have been significant. Naturally we can expect a total panacea for this malady soon. "If winter comes can spring be far behind?" □

## Algae as Fertilizer, Food and Fuel

The Department of Science and Technology has sponsored a project to harness algae as a source of protein, fertilizer and fuel.

The research at the Indian Agricultural Research Institute, New Delhi, has shown that the use of blue-green algae may result in saving of chemical nitrogen fertilizer to an extent of about 30 per cent. It has also found that supplementing the recommended dose of fertilizer with blue-green algae is beneficial in other ways.

There is an attractive return in the algae fertilizer technique with a high benefit cost ratio of 10:1. Tamilnadu leads in the adoption of this technology for rice. This technique has been found useful in other countries also.

## Trade Enquiries

1. Henri Verreet,  
Koelner Strasse 189 B,  
D-4040 Neuss  
WEST GERMANY.
2. Aabasra General Trading  
Enterprises,  
P.O. Box No.461,  
Omdurman,  
SUDAN.  
Cable: Add.: ANILOSALVE

IT  
PAYS  
TO  
ADVERTISE  
IN  
CARDAMOM

## Cashew, no more casual crop

Cashew might have been introduced far back in the century as a quick growing to protect exposed soils from erosion by heavy rainfall. It has grown into an important foreign exchange earner with great potentialities. Cashew is third in the international tree nuts with 20 per cent market coming after hazelnut (29 per cent) and almond (25 per cent).

Having established itself as the largest exporter of cashew nuts accounting for about four-fifths of the international trade, India has to maintain this position against competition from African countries which have lately installed sophisticated processing equipments for handling their raw nuts, bulk of which are being exported to India for processing. The immediate concern is to fore to eliminate our dependence on these countries for the raw nuts and become near-self-sufficient in this field as soon as the demand from the African countries is not forthcoming in future.

Our present production has been estimated at 17900 tonnes (raw nuts) from 417,000 hectares. India should produce 450 000 tonnes of raw nuts annually, if it has to maintain its present position in the international trade and also ensure a reasonably full level of employment to the workers in the processing factories numbering over 400.



## FINLAND

Finland constitutes the second largest European market for cardamom. India's share of this market is under 10 per cent. In 1965 India accounted for 75.7 per cent of all cardamom imported to Finland. By 1974, this came down to 6.7 per cent.

(11.9 per cent of imports in 1976); Tanzania and certain European trading centres like Hamburg and Amsterdam. Details of the share trend by source are set out in Table-1. This illustrates the extent to which Guatemala has consolidated her position in the market.

while India has made some marginal recovery in share terms in 1976, her position in the Finnish market is still relatively weak.

Finland is primarily a market for cardamom seeds; while the data on Indian exports to Finland

### USAGE

The main usage of cardamom in Finland is in the preparation of "Coffee Cake", a sweet white bread which is a traditional consumer product. Coffee Cake is baked at home and also manufactured in plant bakeries and distributed through normal grocery outlets. In the manufacture of coffee cake cardamom is used in ground form. The primary demand from both industrial and domestic users, is for either ground cardamom or for whole cardamom seeds for grinding by the final user either in the home or the plant bakery.

*Following is an excerpt on Finland from the report on the market survey jointly carried out by Cardamom Board and International Trade Centre, Geneva, in the Middle East and West European countries. The survey team consisted of shri N. Bharathan Pillai, Market Development Officer, Cardamom Board and Mr Brian Mc. Loughlin, Marketing Consultant, International Trade Centre, Geneva. Excerpts on Kuwait, Bahrain, Iran, Qatar, Saudi Arabia, United Arab Emirates and Sweden appeared in the preceding issues of "Cardamom"*

—Editor

### IMPORT HISTORY

Imports of cardamom in Finland have remained fairly constant around 150 tonnes over the past five years. The maximum level of imports ever recorded was 173.4 tonnes in 1971. In 1973, only a minimum volume of 32.3 tonnes was imported. Details of imports by source are set out in Table-2.

The principal supplier of cardamom to Finland today is Guatemala, which accounts for some 44 per cent of total imports. Other sources of supply are India

(Table-3) is relatively uninformative because of the small volumes involved, it corroborates the view that it is a seeds market and imports of whole cardamom are for decortication or for specialised usage. There is also a small and declining trade in bleached cardamom. No details are available on the breakdown of imports from Guatemala and other sources by type. Field investigations show clearly that the type of cardamom imported from these sources is either cardamom seed or cardamom of lower qualities from which the seed can be taken.

Until 1975 the principal growth in cardamom consumption was from the bakery industry. The trend in the market for coffee cake was for increasing purchases of ready-made products from grocery stores while the traditional home-baked coffee cake was declining. However, with the effects of the world-wide recession and higher manufacturing costs, there has been a resurgence in home-baking; it is considerably cheaper to produce coffee cake at home than to buy it ready-made. In 1975 it was estimated that 70 per cent of all cardamom sold in Finland



# ACCOTHION\* 50% E.C.

THE VERSATILE INSECTICIDE FROM CYANAMID



## FOR BOUNTIFUL HARVESTS

ACCOTHION 50% E.C. OFFERS BETTER PROTECTION TO YOUR FARM, ORCHARDS, & LIVESTOCK FROM RAVAGES OF PESTS

ACCOTHION 50% E.C. is highly effective and widely recommended for use against many pests. Due to its inherent safety it is also used against animal pests.

### WIDE SPECTRUM FOR PESTS & CROPS

ACCOTHION 50% E.C. is extensively used in control of many hard-to-kill chewing and sucking pests like stemborers, hoppers, beetles, caterpillars, mealy bugs, aphids & others in a wide range of important crops like paddy, cotton, jowar, sugarcane, tea, coffee, oil seeds, vegetables, citrus, grapes & other fruit crops.

### SAFE

Due to its comparatively low mammalian toxicity it is safer compared to many conventional insecticides.

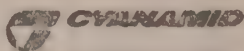
### CONVENIENT

One application controls simultaneous attack of various types of pests.

### ECONOMIC

Lasting protection against pests. Richer Harvests.

**USE ACCOTHION 50% E.C. FOR LONG-LASTING PROTECTION**



Cyanamid India Limited  
Agricultural Division  
P.O. B. 9109, Bombay 400 025

**Cyanamid the name every farmer trusts**

\* Registered Trademark of American Cyanamid Company, Wayne, New Jersey, U.S.A.

ACCOT/1/77



Table-1  
SHARE OF IMPORTS-VOLUME BASIS

	1972 %	1973 %	1974 %	1975 %	1976 %
India	7.0	10.9	6.7	3.8	11.9
Guatemala	67.9	72.5	68.0	92.1	73.9
Tanzania	12.6	11.0	12.7	1.7	5.2
Others	12.5	5.6	12.6	2.4	9.0
	100.0	100.0	100.0	100.0	100.0

SOURCE: Compiled from National Foreign Trade Statistics-Finland.

Table-2  
IMPORT OF CARDAMOM INTO FINLAND-BY SOURCE  
DURING 1971 TO 1976

	Source	Quantity (M.T.)	Value	
			(Rs. '000s)	(\$ '000s)
1	India	48.3	2,411	334.2
	Guatemala	107.2	5,217	723.2
	Tanzania	13.8	421	58.4
	Others	4.1	209	29.0
	TOTAL :	173.4	8,258	1,144.8
2	India	10.5	399	49.8
	Guatemala	101.7	3,337	416.7
	Tanzania	18.9	517	64.6
	Others	18.8	462	57.7
	TOTAL :	149.9	4,715	588.8
3	India	14.4	392	48.2
	Guatemala	95.9	2,974	365.8
	Tanzania	14.5	433	53.3
	Others	7.5	189	23.2
	TOTAL :	132.3	3,988	490.5
4	India	10.0	365	45.2
	Guatemala	102.0	2,764	342.2
	Tanzania	19.0	402	49.8
	Others	19.0	175	21.6
	TOTAL :	150.0	3,706	458.8
5	India	6.0	153	17.1
	Guatemala	147.3	6,461	722.9
	Tanzania	2.8	130	14.6
	Others	3.8	199	22.3
	TOTAL :	159.9	6,943	776.9
6	India	18.4	1,233	138.8
	Guatemala	114.2	9,291	1,046.2
	Tanzania	8.0	745	83.9
	Others	13.9	1,091	122.9
	TOTAL :	154.5	12,360	1,391.8

SOURCE: National Foreign Trade Statistics-Finland

went to industrial users—the plant bakers. The balance of 30 per cent was sold prepacked to domestic users for home-baking. This balance has now shifted so that the share of total Consumption accounted for by industrial users has fallen to 60 per cent, while the proportion consumed by domestic users for home-baking has increased to 40 per cent approximately. There is, however, an underlying downward trend in consumption of coffee cake. The younger segment of the population concerned with health and weight considerations are not consuming coffee cake to anything like the same extent as their elders.

Since the primary usage of cardamom in Finland is either in seed or ground form, the market is concerned little with the external appearance of the cardamom capsules. The primary consideration of importers of cardamom to Finland is litre-weight. In addition, the bakery segment of the market is concerned with the oil content; the higher the oil content in the cardamom used, the lower the concentration that is necessary in the standard dough premix that they use. Normal levels of usage in the plant bakery are 10 gms of cardamom per litre of unbaked dough. In domestic baking, the proportion can vary depending on individual taste. However, the average level of domestic usage would probably be broadly similar to that in the plant bakery. There is also a low level of usage of bleached cardamom among older housewives for baking.



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

Gram: " PEEACEE "

Phone. 336

*AUCTION CENTRE:*

**VANDANMETTU (Idukki Dist.)**

Phone: 45

*Head Office:*

**329 Main Road, Cumbum-626 516, Madurai Dist.**

*Branches:*

VANDANMETTU (Idukki Dist.)

PAMPUPARA "

CHENKARA "

NARIYAMPARA "

PARATHODE

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



Table-3

EXPORT OF CARDAMOM FROM INDIA TO FINLAND  
DURING 1971-72 TO 1975-76

Grades	Quantity (M. T.)	Value	
		(Rs. '000s)	(\$ '000s)
1-72 Alleppey Green	10	402	52.8
Coorg Green	—	—	—
Bleached/Bleachable	1	35	4.6
Seeds	4	140	18.4
Mixed	—	—	—
TOTAL :	15	577	75.8
2-73 Alleppey Green	1	42	5.2
Coorg Green	—	—	—
Bleached/Bleachable	1	25	3.1
Seeds	3	94	11.6
Mixed	—	—	—
TOTAL :	5	161	19.9
3-74 Alleppey Green	1	35	4.3
Coorg Green	—	—	—
Bleached/Bleachable	—	—	—
Seeds	—	—	—
Mixed	—	—	—
TOTAL :	1	35	4.3
4-75 Alleppey Green	—	—	—
Coorg Green	—	—	—
Bleached/Bleachable	—	—	—
Seeds	—	—	—
Mixed	—	—	—
TOTAL	—	—	—
5-76 Alleppey Green	1	109	12.2
Coorg Green	—	—	—
Bleached/Bleachable	—	—	—
Seeds	4	263	29.5
Mixed	—	—	—
TOTAL :	5	372	41.7

SOURCE: Cardamom Board, India

### CONSUMER PATTERNS

of the total population of 4.73 million, 48.3 per cent are men and 51.7 per cent women. The average number of persons per household is 3.34 and there are approximately 1.31 million households in Finland.

The concentration of population is in the Helsinki and Southern Finland areas. This part of the country accounts for some 70 per cent of the population can according to trade sources probably more of total grocery consumption. Educational and living standards are high.

Finland is a highly sophisticated consumerist society. Standards of packaging and grocery retailing are among the most advanced in Europe and the controls on all forms of marketing activity are strict and consumer oriented. All packaged goods are subject to stringent labelling regulations. Cardamom, however, as a natural agricultural product, is not subject to the same controls as prepacked imported foodstuffs.

Consumer pressure in Finland demands that all manufacturers must conform to the highest standards.

### DISTRIBUTION

Cardamom for retail sale is distributed through grocery outlets. To understand the distribution of cardamom, particularly in the domestic sector of the market, it is necessary to review the unique structure of the Finnish retailing industry.

Four retailing chains account for over 80 per cent of all grocery sales in Finland. They are S.Q.K. and E.T.K. (co-operative groups), Tuko (an independent voluntary group owned by wholesalers), Kesko (a retailer-owned voluntary buying group). All these chains buy centrally, particularly for imported products such as cardamom.

The Co-operatives run both bakeries and retail outlets. Cardamom for consumer co-operatives is brought centrally by indenting through a central buying organisation (N.A.F.) in Copenhagen. Quantities imported in Finland by the co-operative



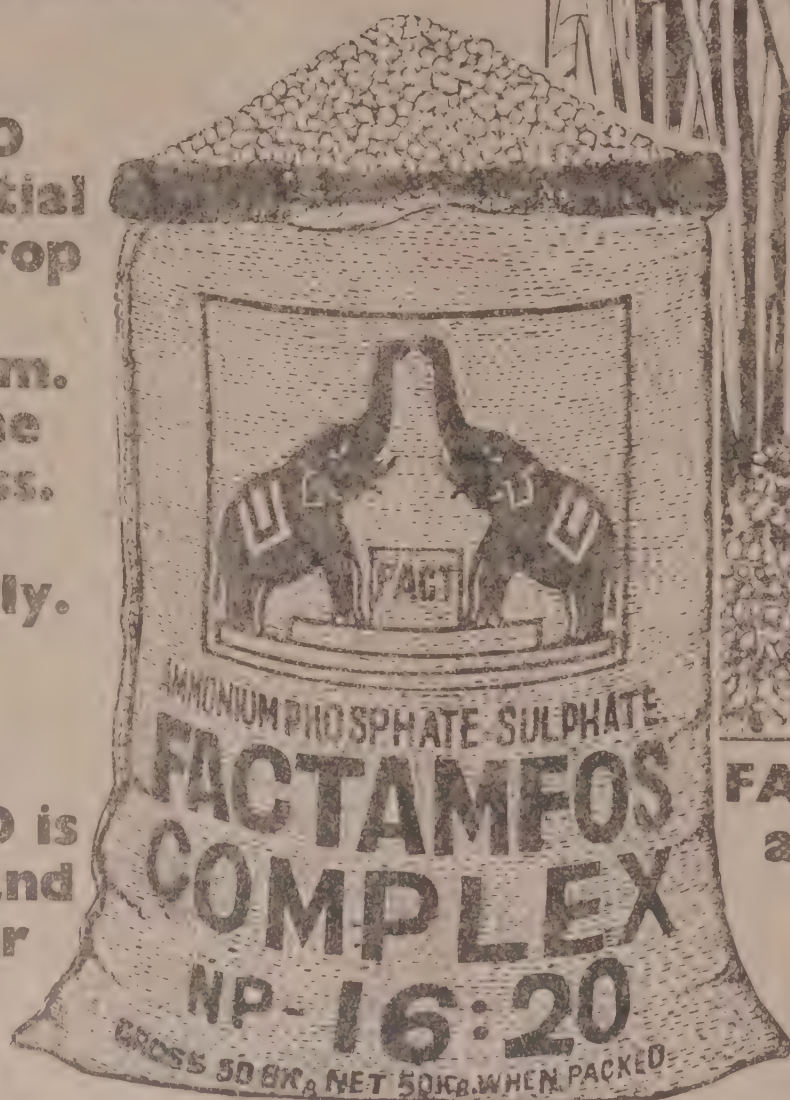
**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available  
planters**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**  
(A Govt. of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekanthaswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



eties are then ground by subsidiaries of the co-ops and packed, or distribution to the co-operative stores. Quantities required for the co-operatives are also ground by the same subsidiaries and sold in packs to the co-operative stores.

O.K., O.T.K. and Tuko, all cardamom under their own name. In addition, they distribute cardamom under the Kockens (General Foods) and the Pauligs brand names. These are the brands of two of the best spice grinders in Finland. Kockens is, moreover, the licensed agent of the Mc Cormick's brand in Scandinavia. Kockens and Pauligs are the principal private label manufacturers and packers of spices. Details of their brand shares are not available but trade sources indicate that these two brands, together with the Co-operative Society private label brands, account for upwards on 90 per cent of all spices sold to the domestic consumer in Finland.

Standard packaging for retail of cardamom in Finland is in plastic tubes of approximately 8 gms in weight, containing either whole cardamom seeds or ground cardamom. These plastic tubes, in the past manufactured in glass, are the traditional form of packaging for cardamom in Finland. More recently, foil envelope packs of 8 gms weight have been introduced and the grinders and packers are attempting to convert the consumers to accept foil packs. The plastic tubes are difficult to handle, package and display, and

accordingly the spice packers feel that they can provide better services and prices using foil packs. In addition to the standard sizes, some of the spice grinders and distributors pack a 22 gm glass jar. However, the main purpose of this style of packaging is to provide cardamom in a standardised form of packaging as part of the total spice ranges offered by the manufacturer. Some manufacturers also produce a 12 gm glass jar of cardamom.

Distribution to the bakery industry is normally in packs of 1 kg. Bakery outlets are supplied by the same manufacturers and packers who supply the retail segment of the trade though the distribution lines are somewhat different. In the case of co-operative bakeries, they are supplied by the spice grinding section of the co-operative movement. Independent bakeries normally buy through the wholesaling channels which cater to bakery products. In some instances these are the same wholesalers who form part of the Tuko wholesaler-owned retailing chain. Larger bakeries will, however, buy directly from the larger spice grinders.

The pricing and margin structure in Finland is as follows: wholesaler to retailer 8 per cent; retailer to consumer 30-35 per cent. The margin available to importers who grind and pack on their own account is difficult to determine. Retail prices in Finland for cardamom must remain consistent from month to month and throughout the year, since they are agreed with Government.

Accordingly, the importers and the grinders must absorb fluctuations in the import price for cardamom and their margins vary depending on the price at which they can buy cardamom in the world markets.

The normal margin structure for sales to industrial users is a mark-up of 10 per cent made by the wholesaler. In the co-operative groups who are packing under their own name, the normal margin for the retail segment of the society is 38 per cent, and this margin level is agreed with Government for non-essential goods. In addition to these margins, a Government tax of 14 per cent on turnover is levied. This tax is payable on the value of turnover at the point of final sale to the consumer.

## IMPORT PRACTICES

There are three types of importers active in the purchase of cardamom in Finland. First, there are the two major co-operative groups S.O.K. and O.T.K., who import on their own account for grinding and packaging by their own mills, for sale retail through their own shops, or in the industrial segment to fully-owned subsidiary bakeries for subsequent sale of cardamom flavoured coffee cake through their own retail outlets. The Tuko wholesale-owned voluntary group operates in an identical way to the S.O.K. and O.T.K. co-operative societies in their handling of cardamom. They buy directly from the countries of origin and grind and pack in their own premises for subsequent sale through their associated stores.



# **Associated Cardamom Auctioners (Private) Limited**

(Regd. Office: XXXV/543, Warriam Road,  
COCHIN-16)

This year we quietly enter the field of Cardamom  
auction for better services to the planters,  
Dealers and Exporters.

Selection of any type of cardamom is available  
at our auction.

**AUCTIONS ARE CONDUCTED AT  
KALLAR, VATTIAR P.O.  
ON EVERY WEDNESDAY**



The second type of importer is the independent large spice packer. The largest example of this type of outlet is the Paulig group. This large importer of coffee and spices is an independent company which has facilities for storage, spice grinding and spice packaging. Paulig is typical of the large spice grinding, packaging and marketing houses that are to be found in Europe.

The third type of importer is the small spice grinding firm usually supplying only the industrial segment of the market. These importers normally operate through indenting agents in Helsinki and do not represent a major segment of the spice business.

All the larger importers buy directly from the country of origin. In the case of supplies from Guatemala however, the importers have appointed agents in Helsinki who market their output to the large buyers in Finland. In the case of the larger importers shipment is direct from the supplying country to Helsinki though there may be some element of trans-shipment in one of the major European free ports such as Rotterdam or Hamburg. In addition, all the importers tend to buy "top-up" supplies from cardamom and spice traders in either Hamburg or Rotterdam. However, the volume accounted for by this type of trading is relatively small.

The main source of cardamom for the Finnish market is Guatemala. The primary reason is that their prices have been more competitive. Where possible,

importers will buy seeds, since there is little opportunity in Finland to use husks in any form. The larger packers selling ground cardamom in the domestic market segment will however, grind husks and seed together.

The presence of Guatemalan agents in Helsinki is an important factor for their dominance in the Finnish market. Importers have direct and frequent contact with these agents and are thus able to plan their purchasing pattern over an extended period. Another factor in favour of Guatemalan supplies is better import packaging. The standard pack for the importation of Guatemalan cardamom is new wood cases with a strong plastic liner. Thus, there is very little weight variation or loss of aroma during the shipment time. Shipping time from Guatemala is approximately 1½ months as against 2 months from India.

There are a number of factors mitigating against increased imports of cardamom from India to Finland. Price is but one consideration; in recent months the prices of cardamom from Guatemala have risen to be broadly comparable with the prices for equivalent Indian grades (AGS 1 and 2). The reputation of Indian exporters for failing to maintain quality is a major barrier to the development of further trade between India and Finland. All the importers interviewed reported instances of considerable variation between the initial sample on which the quotation was given and the bulk supplies delivered to Finland. The considerable variation in prices from

India, from week to week and month to month, present considerable difficulties to Finnish importers. Retail prices in Finland cannot be varied from week to week. Government regulations control the maximum price at which all food products can be sold and companies marketing spices must obtain Government permission for any variation upwards in the retail price. Accordingly, importers seek to establish longer term prices, which has been possible with Guatemalan exporters. The litre-weight of Guatemalan supplies in the middle grades which are most appropriate for the Finnish market, is considerably higher than that for the equivalent Indian grades. Importers seek a litre-weight approaching 400 gms per litre.

A further barrier is the regulation insisting on irrevocable Letter of Credit for all transactions with Indian cardamom exporters. The standard trading practice of Finnish spice importers is Cash against Documents. The current Indian regulations add 1 to 2 per cent to the overall cost of cardamom and are seen by Finnish exporters as an unnecessary complication.

The importation of cardamom to Finland is highly centralised and if India is to regain some significant share in the Finnish market Indian exporters must make themselves aware of its particular requirements. In summary, these are:

- (1) Good quality seed of high litre-weight, second or third grade whole cardamom for grinding.



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337

♦

*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms  
for the year 1973-74 from the Ministry of Commerce,  
Govt. of India and also from the Spices Export Promotion  
Council, Cochin and shield for 1975-76 from the Spices  
Export Promotion Council, Cochin.

♦

Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"  
IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



Consistent quality conforming at all times and throughout the year to the samples on which the contract was based.

Liberalisation of trading terms, particularly the elimination of the Letter of Credit rule.

Improved communications between Indian exporters and Finnish importers. This could be achieved by the appointment of local agents by Indian exporters.

Consistent supplies; the Finnish importers have a large and efficient distribution chain. They are unable to do this effectively unless they can rely on supplies of the appropriate quality, viz: AGS and AGS 1 and good quality seeds, being available at all times throughout the year.

#### IFFS AND REGULATIONS

There is no duty levied on imports of cardamom to Finland. Stringent health regulations which apply to prepacked food products, are not applied to imports of basic agricultural commodities such as cardamom. However, there are careful health checks at the point of importation. The Customs authorities to ensure that no adulteration of commodities such as spices and cardamom takes place.

#### PROMOTION

At present there is no form of promotion given to cardamom in the Finnish market. The larger

spice packers, however, such as Paulig and Kockens, do give some limited advertising and below-the-line support to their full spice ranges. Since cardamom is an expensive spice, it is not felt that direct promotion of this individual element within the total spice range marketed by these companies would be justified.

#### DEMAND ASSESSMENT

Any forecast of the future demand pattern for cardamom in Finland must be based on a forecast of the consumption trends for coffee-cake, the principal end use for cardamom. The general trade view in the market is that consumption of coffee cake will remain stable or may even decline, as consumer habits change because of concern for health and weight considerations. Moreover, coffee-cake is now an expensive commodity to purchase pre-baked. Accordingly, there has been a small resurgence of home baking which compensates for any decline in demand for cardamom for use in the industrial segment.

Moreover, there is already evidence of price resistance at the current price levels, particularly among industrial users, there is evidence of substitution of Large Cardamom or artificial cardamom flavours by smaller bakers. Trade sources do not expect that substitution of artificial cardamom will become a major factor in the market because of the consumer demand for a true cardamom taste and feel.

The only factor which the trade feel might increase consumption of cardamom in the Finnish market would be a marked reduction in prices. However, they do not expect that this will take place. So the general trade view of the future of cardamom imports to Finland is one of broad stability or slight decline in volume.

There are opportunities for India to improve her position in the Finnish market. Prices from Guatemala for cardamom seeds are now at the level of between US \$ 15.5 and US\$ 18.5 per kg. If Indian exporters can match these prices for seeds and eliminate some of the practical problems of quality and export regulations, it should be possible for them to continue and accelerate their market position. However, any improvement in the Indian share of the Finnish market for cardamom, must be achieved in a context where there is no real market growth. In the immediate future there are no factors in evidence which could contribute to a situation where the demand for cardamom overall in the Finnish market will improve significantly.

#### PROPOSED STRATEGIES

The promotional objective for Indian cardamom exporters in the Finnish market must be to regain some of the lost share in this market. The opportunities now exist to do this, since the prices from India's principal competitor in the market-Guatemala-are now broadly in line with the prices in India. The forms of execution necessary to



# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM

PREMIER OFFERS MORE

- 1 ECONOMICAL CAPITAL COST.
- 2 STRONG, RELIABLE EQUIPMENT.
- 3 **FREE** TOTAL IRRIGATION PLAN  
SURVEY TO COMMISSIONING

Specialised and efficient equipment  
engineered at the lowest capital cost for your  
plantation.

## SPRINKLERS

Spray water overhead gently and evenly, like rain.  
Regulated supply prevents water wastage.  
Creates humid atmosphere necessary for cardamom  
cultivation.

## COUPLING VALVES

New and exclusive to Premier Systems. Sprinklers  
are moved and reconnected easily and quickly. Less  
labour. More irrigation.

## PIPELINES

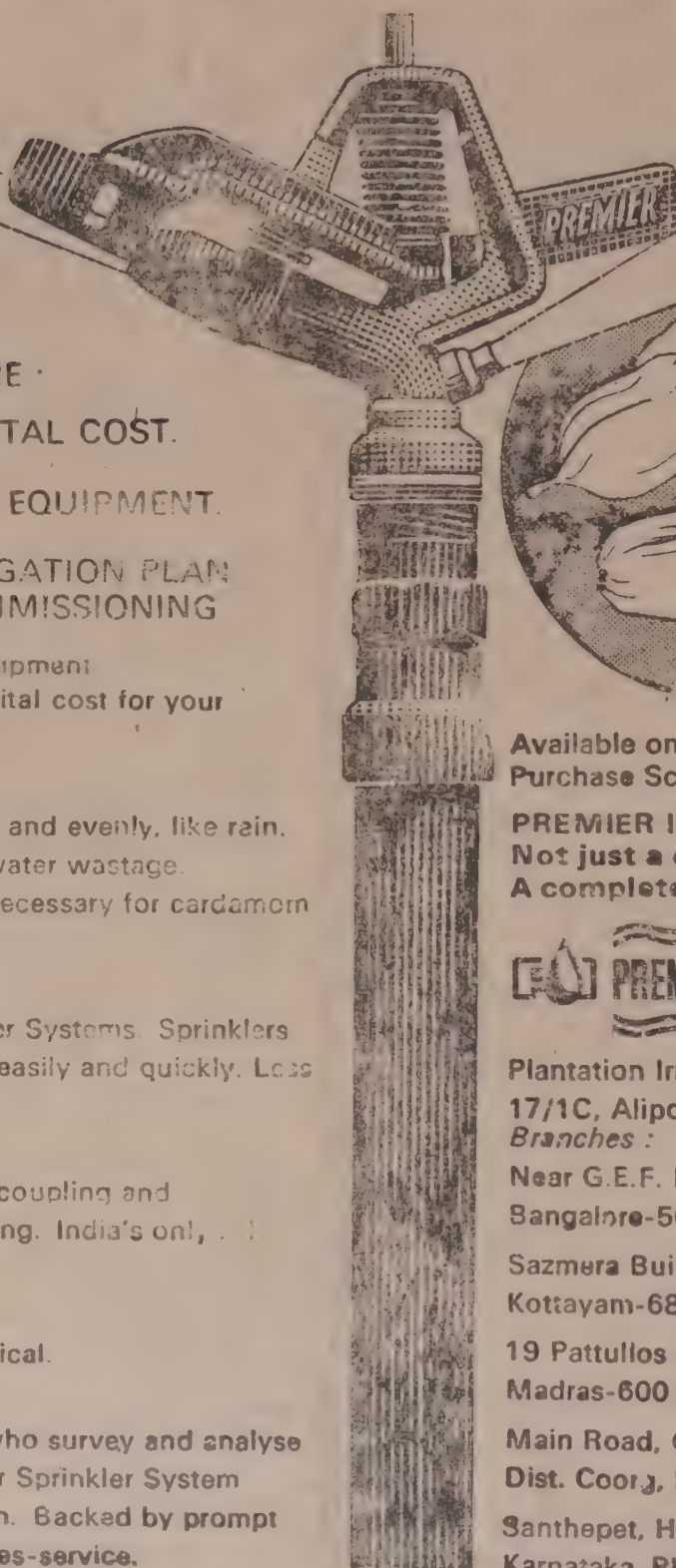
Flexible and strong. Fastest coupling and  
uncoupling. Best water sealing. India's only,  
certified pipes.

## PUMPSETS

More reliable. More economical.

## PREMIER SERVICE

Highly trained expert team who survey and analyse  
before proposing the Premier Sprinkler System  
best suited to your plantation. Backed by prompt  
and comprehensive after-sales-service.



Available on Cardamom Board Hire-  
Purchase Scheme.

PREMIER IRRIGATION  
Not just a complete system.  
A complete service.



Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
Branches :

Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 61670/63820

Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570

19 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604

Main Road, Gonikoppal  
Dist. Coorg, Karnataka. Phone : 7

Santhepet, Hassan 573201  
Karnataka. Phone : 8840



improve the Indian share of the market are not, in the main, direct consumer oriented promotion. Much more effective will be improvements in the export practices of Indian exporters and particularly improvement in quality control. Indian exporters should recognise that Finland is primarily a market for cardamom seeds. Exporters seeking to generate business in Finland should submit quotations for cardamom seeds, rather than for whole cardamoms. A clear market opportunity appears to exist for Coorg Green seeds in Finland. Importers in Finland expect consistent supplies, and there are few opportunities for one-off sales into the Finnish market. Exporters who wish to

enter this market would be well advised to consider appointing an agent on their behalf in Helsinki. Only by doing so can they expect to compete terms with equal the Guatemalan exporters.

The Government of India should also consider easing the regulation on irrevocable Letters of Credit in respect of the Finnish and other West European markets. Importers in Finland trade on the basis of Cash against Documents. To insist on more rigorous trading terms is a major barrier, since it adds an additional cost to the prices of cardamom from India, in the form of high interest rates on borrowed money.

annex

## PRINCIPAL IMPORTERS OF CARDAMOM - FINLAND

Bang & Co oy,  
Mannerheimintie 14,  
00100 Helsinki 10.

Oy Gustav Paulig Ab,  
Leikosaarentie 3,  
00980 Helsinki 98.

\* O T K Keshusosuushike  
(Central Co-operative Society),  
Hameentie 19,  
00500 Helsinki 50.

Tukkukauppojen Oy,  
Panimokatu 1,  
00500 Helsinki 50.

\* SOK Suomen Osuuskauppojen  
Keshuskunta,  
(Finnish Co-operative  
Wholesale Society),  
Klinterviketehdas (Food-Factory),  
Fleminginkatu 36,  
00510 Helsinki 51.

\* Buys through N.A.F.  
Copenhagen.

## Protect your cardamom from these pests

Aphids



Thrips



Spray CIBA-GEIGY's

**Dimecron:** An economical systemic insecticide for the control of Aphids. By controlling Aphids DIMECRON helps you to control KATIE disease.

**Nuvacron:** A powerful systemic and contact insecticide for effective control of Thrips.

Cardamom Board has recommended  
DIMECRON for the control of Aphids and  
NUVACRON for the control of Thrips.



**CIBA-GEIGY of India Ltd.**

Agrochemicals Division

Khetan Bhavan, 198, J. T. Road, Bombay 400 020.



CG/CM/77



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.

- Area under Cardamom

225 Hects.

Pasuparai Estate  
Pasuparai P. O.

Elappara

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.



## MARKET RESEARCH/ DEVELOPMENT PROGRAMMES

Realising the fact that market research is a valuable tool for solving marketing problems and so for evolving suitable strategies for ensuring smooth running of the trade internally and for boosting exports, due importance has been given to this area by the Cardamom Board. Under market research/development programmes, the Board envisages:

To undertake regular and thorough studies on markets both domestic and external and to compile them.

To disseminate such information for the benefit of concerned interests.

To circulate trade enquiries received from foreign importers among the Indian exporters.

To do liaison with exporters for understanding the problems of the export sector and to find practical solutions.

To do export promotion activities for promoting consumption of Indian cardamom abroad.

To assist exporters in their promotional efforts, etc.

### MARKET INFORMATION SERVICE

Information on all aspects of the industry especially supply and demand position—domestic as well as international—is the paramount requirement for planning for development. The Board collects, compiles and analyses all information on domestic and international marketing of cardamom. This information is put to use for planning future programmes of the Board, their implementation and evaluation and also for the use of all sections connected with the cardamom industry. The Board has now a fund of information on marketing of cardamom right from cultivation till the commodity reaches the consumers all around the world. Global requirements of the commodity and the supply conditions prevalent in India and other producing countries are collected and disseminated regularly and timely for proper use in planning for export promotion.

### INTERNAL MARKET RESEARCH

#### (a) Licensing of Auctioneers, Dealers & Exporters

In order to ensure smooth running of the trade in India, the Board implements the Cardamom (Licensing & Marketing) Rules 1977. As per these Rules different functionaries are required to

obtain licenses from the Board for engaging in the business of cardamom. Auctioneers, dealers and exporters are the 3 licensed market functionaries. Implementation of the Licensing Rules enables the Board to control, regulate and promote marketing of cardamom and also to collect proper market intelligence.

#### (b) Domestic Market Survey for Cardamom

The Board has recently undertaken an on the spot internal market survey for cardamom in the important consuming centres in India to understand the varying consumer tastes, usage pattern, varieties and quantum of annual and seasonal requirements, price trends, demand pattern, distribution channels, etc. This report is under preparation. Meanwhile, recommendations of the survey for promoting uses of cardamom in India, which is also a basic objective of the Board, are being implemented to fit in the additional surplus anticipated in the coming years.

### EXTERNAL MARKET RESEARCH/ DEVELOPMENT

The Board is in regular contact with organisations like International Trade Centre (UNCTAD/GATT), Geneva, Food & Agricultural Organisation, Indian Institute of Foreign Trade, Trade Development Authority, the commercial wing of the Indian Missions abroad etc. for collecting and updating international marketing data on cardamom. Publications issued by these agencies are studied thoroughly



# The king of spices deserves the king of fertilizers



Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



collection of valuable market intelligence. In the year 1974, based on a desk research, the Board brought out a publication "Know Your Market For Cardamom", providing as much information as possible regarding market potentialities for cardamom in different importing countries in a convenient form to exporters and others connected with the cardamom industry.

This report contained a detailed analysis of various information relating to size of the market, nature of competition, demand/usage pattern, tariff and non-tariff barriers, etc. with respect to all the 23 major importing countries of the world. Lists of importers of cardamom/peppercorns in each country were also appended in the report.

#### **On-the-spot Market Surveys**

Desk research on markets abroad has its own limitations. Hence, the Board took active interest and initiative for probing overseas markets by experts in the field. During November 1977-January 1978, the Board undertook an on-the-spot market survey on cardamom in the most important markets, viz. Kuwait, Saudi Arabia, Qatar, Bahrain, Oman and U.A.E. in the Middle East and Sweden, Finland, Norway, Denmark, West Germany and Netherlands in the West Europe with the technical and financial assistance from the International Trade Centre, (UNCTAD/GATT), Geneva and Swedish International Development Agency. This on-the-spot market survey has thrown open a wealth of information on the market position and other relevant details relating to the important cardamom consuming countries.

According to the critics and various sectors of the cardamom industry, this report was 'a masterly analysis'. The findings of the survey and the recommendations were disseminated to all sectors of the industry through personal discussions, publications, etc. The report viz. "Market Survey of Cardamom in Selected Middle East and West European Countries" was brought out and supplied to all interested parties including exporters, planters, and researchers. The survey has also enabled the Board to evolve proper marketing strategy with respect to export to 'Core' markets like the Middle East and the Scandinavia.

As per the recommendation of the first survey mentioned above, the Board undertook another on-the-spot survey for cardamom in the peripheral Arab countries, viz. Iraq, Syria, Jordan, Egypt, Tunisia, Libya, Algeria and Morocco during January - March 1979 again with the technical and financial assistance from the International Trade Centre, (UNCTAD/GATT), Geneva and the Swedish International Development Agency. The report of this survey is under preparation. Meanwhile, major recommendations of the survey are being implemented in consultation with veterans in the industry. This survey has opened new avenues for boosting our exports to non-traditional markets, like Libya and Jordan which remain unexplored by India.

#### **Market Development Programme for Cardamom in U.S.A. Canada, Japan & West Germany**

A proposal for a market development programme for

cardamom in U.S.A., Canada, Japan and West Germany to be undertaken again with the technical and financial assistance from the International Trade Centre, Geneva for 1979-80 is also under consideration/implementation. This project is to undertake specific investigations into new end uses both in food and non-food industries acceptable in the affluent countries mentioned. The idea is to develop new products using cardamom as an element in items like ice cream, chewing gum, bakery products, liquors, perfumes, mouth fresheners, etc. The proposed project envisages direct dialogue with respective food and non-food industries in the countries mentioned.

#### **Information on other producing countries**

Information on the supply position of the other producing cum-exporting countries, viz. Guatemala, Tanzania, Sri Lanka, Papua New Guinea, etc. is being collected regularly and analysed by the Board for our future planning in production and marketing. Information on programmes for development, the facilities offered etc. with respect to each of the other supplying countries are collected through correspondence, reports, publications, etc.

#### **Opening a Market Intelligence-Cum-Promotional office in Middle East**

The Middle East provides the major market for cardamom and the behaviour of these markets is the principal determinant of



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N.	P.	K.
40 (38)	80 (40)	80



For Particulars

## T. STANES & COMPANY LIMITED

### AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 33518

OR

**Our FACTORIES and Branches:**

- |                            |            |
|----------------------------|------------|
| 1. Avaniapuram (Madurai    | — 625 012) |
| 2. Ettumanoor (Kottayam    | 686 631)   |
| 3. Calicut (Malabar        | — 673 004) |
| 4. Kanimangalam (Trichur   | 680 007)   |
| 5. Mangalore (South Kanara | 575 006)   |
| 6. Palghat (Kerala         | 678 001)   |
| 7. Shimoga (Karnataka      | — 577 201) |



hand and prices throughout trade, both within and outside India. For effective control in cardamom marketing it is necessary that the demand, supply and price trends in the markets are monitored closely, and the relevant information on consumption is relayed efficiently to all segments of the cardamom trade. And the only effective method of generating this type of feedback of a high quality is the establishment of a cardamom industry observer in this area. The proposal of the Board for opening a market intelligence cum-promotional office in the Core market is presently attracting the attention of the Government of India. It is envisaged that such an office can:

Assess the annual requirement of cardamom in the area well in advance.

2. Do continuous market research covering stocks, transport bottlenecks, consumer behaviour, packaging etc.
3. Implement the promotional programmes of the Board.
4. Maintain an effective market intelligence system.
5. Assist in settlement of trade disputes between importers and Indian exporters, etc.

#### EXPORT ASSISTANCE

Export assistance/promotion is a follow-up of market research/development. Dissemination of the recommendations of market studies basically forms the first and foremost export assistance activity of the Board. Exporters are encouraged to visit foreign

countries to make them aware of the need for personal selling in boosting our exports. Attempts are made by the Board for providing facilities like telephone, telex, etc. for quick transfer of information in important cardamom marketing centres. Matters connected with the export trade like shipping, freight rates, export by air, etc. receive due attention of the Board and action taken for removing bottlenecks, if any. Various trade enquiries received from foreign importers directly and through the Indian Missions abroad are circulated among Traders' Associations and published in Board's monthly publication "Cardamom". Active interest is being taken for settling amicably disputes between importers and exporters on quality of cardamom, delivery schedule, etc.

Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

## TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

#### Factories at :

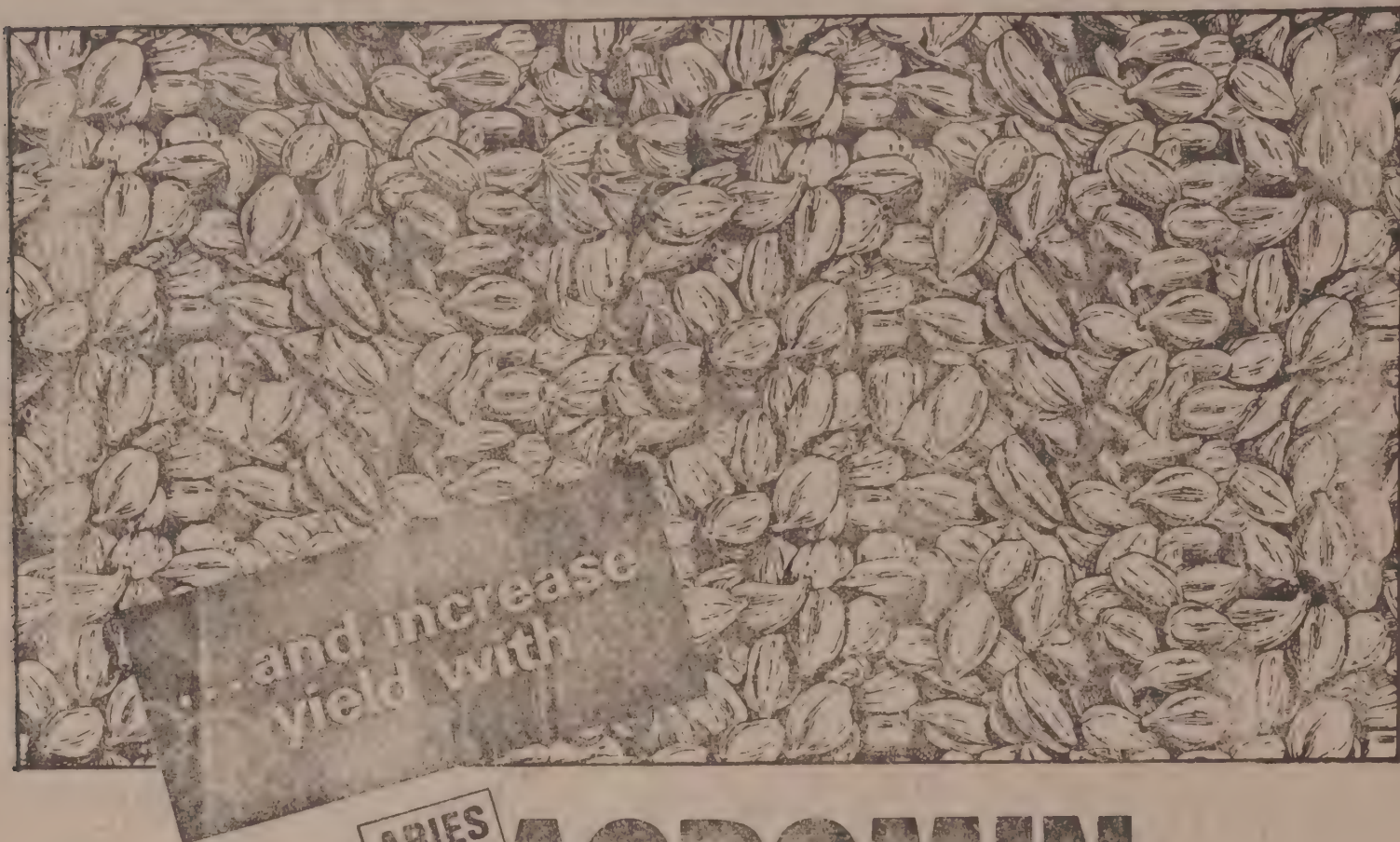
- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. KONUR   |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

#### Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.



**Ensure adequate  
nutrient supply to your  
cardamom crop**



**ARIES**

**AGROMIN**

**India's First Chelated Plant Nutrients**



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.



For details write to:  
The Agricultural Adviser

**ARIES AGRO-VET INDUSTRIES PVT. LTD.**  
P.O. Box 9417, Bombay 400 093

**ARIES AGROMIN chelated plant nutrients increase crop yield economically**



## Oil Price Hike—Indirect Impact on Cardamom Market

The Organisation of Petroleum Exporting Countries (O.P.E.C.) have decided to raise the base price of crude oil by 35% i.e. \$18 per barrel from 1st July 1979. The hike in oil price will further enhance the per capita income of the Arabs and it is expected that this will indirectly help to get higher price for cardamom.

The Arabs prefer high quality cardamom of AGEB and AGB grades with good green colour and larger size. The growers may give proper attention to harvesting and curing methods in order to get maximum percentage of green and bold capsules thereby reaping premium price for their produce.

## Prices of Pesticides

The Agriculture Minister, Shri. S. Barnala, stated in Lok Sabha recently that the Government would have to consider imposing controls on pesticides if efforts to bring them down did not succeed. Replying to a question, the Minister said prices of some pesticides had risen and this was believed to be due to a rise in the prices of raw material and labour costs. Shri. Barnala said the Pesticides Association had given an assurance that it would exercise informal voluntary control over

prices. If these efforts did not succeed, the Government would have to consider imposition of price control. He said the Government was keen to increase the availability of pesticides, as price hike was generally a concomitant to a situation of scarcity. The Government, therefore, was also encouraging the installation of additional capacity.

## Seaweed For Manure

A pilot project is underway to cultivate intensively selected species of seaweeds, which are useful as manure and in the use of medicine and other products. This information was given by the Minister of State for Science and Technology, Prof. Sher Singh to Lok Sabha recently. A pilot project for the cultivation of Eteromorpha, a seaweed yielding an anti-tubercular drug, is likely to be started at Mithapur (Gujarat) by the Central Salt and Marine Chemicals Research Institute.

At present, the cultivation of industrially important seaweeds, such as those yielding Agar, is also being done by using vegetable cuttings of seaweeds at Marine Algal Research Station, Mandapam (Tamilnadu). M/s. Cellulose Products of India Ltd. is collaborating in this endeavour sponsoring field cultivation of Gelidiella at CSMCRI.

It is planned to take up more projects of a similar nature for coastal areas after evaluating the results of the pilot plant experiments conducted at Mithapur.

# NEWS AND NOTES

## New Fertilizer Project

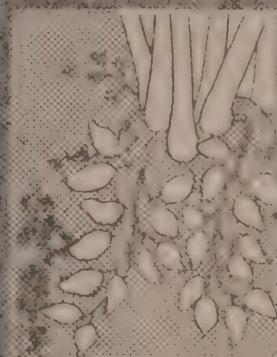
The central cabinet has accorded its formal approval to the setting up of two major fertilizer plants at Thal-Vaishet in Maharashtra. Both the units—two sets of plants—will be based on natural gas available from Bombay High. An official spokesman stated that work on the implementation of the Rs. 511.35 crores project would start from August 1 this year. The first set of ammonia and urea plants are likely to be completed in three years and the second set six months later. However, commercial production is likely to start by the end of 1982.



**VOLTAS**

# zolone

Insecticide-cum-Acaricide



## puts extra power in your hands to protect your cardamom.



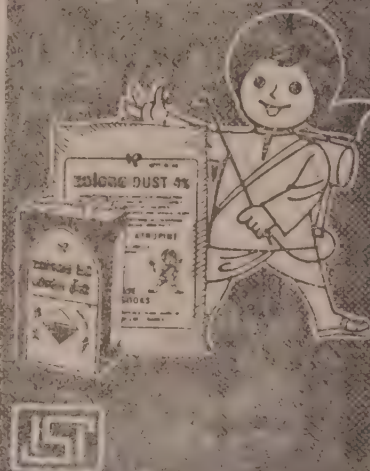
Harmless to bees,  
parasites and  
predators of crop pests.

Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- \* Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- \* Has a local penetration action, so is also effective against sucking pests.
- \* Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- \* Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- \* Recommended as part of integrated pest control programmes.
- \* Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by  
**VOLRHO LIMITED**  
Secunderabad 500 003

Marketed by  
**VOLTAS LIMITED**  
Agro-Industrial Products Division  
Bombay • Calcutta • Madras  
New Delhi • Bangalore • Ahmedabad  
Secunderabad • Cochin • Bhopal.





## aning Agricultural with

gricultural growth has to be  
ed in relation to the rising  
nd of country's growing  
lation and the rising of  
tional consumption level of  
ow income groups. More-  
the stability of the general  
omy and prices, is greatly  
enced by the agricultural  
tion in the country. This  
stated by the Union Minister  
ate for Agriculture and Irri-  
n, Shri. Bhanu Pratap Singh  
s address at the concluding  
ion of the National Agri-  
re Fair, Bhopal, recently.

e Minister of State said that  
gricultural production  
egy has to be suitably  
ted to overcome short-  
Government has recently  
ngthened and streamlined the  
onal agriculture extension  
ce to promote the use of  
y evolved technology. A  
edure for training of village  
workers followed by organi-  
n of regular visits to inform  
ers families has been intro-  
d. The system known as  
is being spread on an  
asing technological package  
orted by appropriate practices  
public policies.

## wards Higher gricultural Production

griculture has shown a margi-  
better performance in 1978-  
the first year of the Sixth Five  
Plan 1978-83, over the  
rd achievement in 1977-88  
ite of the devastating floods  
large parts of the country  
g the year. Total food-

grains production during 1978-  
79 is expected to be more than  
the 125.6 million tonnes achieved  
last year. This is stated in the  
Economic Survey of the Govern-  
ment of India for the year 1978-  
79.

There is no doubt that favour-  
able weather during the last few  
years has been an important  
factor in the encouraging per-  
formance of agriculture. How-  
ever, the growing strength of the  
agricultural sector is also  
explained by other factors such  
as substantial increase in irri-  
gation, a sharp increase in  
fertilizer consumption, an expan-  
sion in agricultural credit, a  
growing capability of agricultural  
research and policies such as  
buffer stocking, price and market-  
ing support and other production  
oriented measures.

Facilities for substantially  
larger production of quality seeds  
—both of hybrids and self-  
pollinated crops—are being orga-  
nised under the National Seeds  
Programme. The strategy con-  
sists of undertaking production  
through growers in different  
States under an arrangement  
with the State Seeds Corporation.  
In addition, the National Seeds  
Corporation and the State Farm  
Corporation of India would  
undertake some production. The  
objective is to ensure that availa-  
bility of quality seeds does not  
constitute a constraint on pro-  
duction.

## International Assistance For Indian Agriculture

Mr. Abdelmuhsin M. Al-Sud-  
eary, President of the Inter-  
national Fund for Agricultural

Development, was anxious to  
contribute towards India's efforts  
to develop her agriculture and  
they were looking forward to an  
era of fruitful co-operation with  
India. He explained that his  
organisation aimed at helping  
the poor farmers and the landless  
people to boost agricultural  
production.

The International Fund for  
Agricultural Development is  
likely to assist three projects in  
India to start with. They are  
(1) Bhima Irrigation Project in  
Maharashtra, (2) Sunderbans Area  
Development Projects in West  
Bengal and (3) Rajasthan Canal  
Command Area Development  
Project (Stage 1, Phase 11).

## Deletion of 'Spices' From Essential Commodities Order

The Government of Tamilnadu  
have issued notification regard-  
ing the deletion of 'spices' from  
the operation of the Tamilnadu  
Essential Commodities (Display  
of stocks and prices and  
maintenance of Accounts) Order,  
1977.

## Export Duty on Coffee Raised

The export duty on coffee has  
been increased from Rs. 750/- a  
quintal to Rs. 900/- a quintal.

A Government announcement  
said this had been done in view  
of the international price of  
coffee.



With the best compliments from:-

## **M/S. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No.

With the best compliments from -

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No.





# Cultivation

## OPERATIONS

AUGUST	South-West Monsoon areas (Kerala-Tamilnadu)	North-East Monsoon areas (Tamilnadu)	South-West Monsoon areas (Karnataka)
Primary nursery	No work	Watering according to necessity. Routine upkeep. Mulching.	Clearing new site, digging, collecting and removing roots, stumps, stones etc. Preparation of beds, breaking cold, and spreading well decomposed farm yard manure or jungle soil. Broadcast Super Phosphate evenly and stir slightly. Select disease free and high-yielding plants for seed collection.
Secondary nursery	Watering according to necessity depending on rains. Starting first round weeding towards end of the month.	Second round mulching. Plant protection measures. Watering. Clearing site for new secondary nursery. First digging and removal of stumps, stubbles etc.	Uprooting of seedlings for transplanting to field completed. Digging, clearing, preparing beds and transplanting seedlings left over in the primary nursery Mulching with paddy husk. Routine watering. Erect shade pandals.
Starting of plantations	First round weeding continued. Planting shade trees according to necessity continued.	Clearing of footpaths, road, drainage channels etc.	Planting seedlings, mulching and staking depending on weather condition, completed. Filling up gaps in previous year's planted areas. Planting shade trees where necessary.
Maintenance plantations	Second round weeding. Thrips control. Starting first round harvest towards month end.	Thrips control. 1st round harvest towards month end.	Weeding. First round harvest, curing, storage etc.



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

## COIR PRODUCTS -

Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

SECRETARY, COIR BOARD, COCHIN-682 016 (KERALA)

OR

VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:

1. NEW DELHI:	16A, Asaf Ali Road	Tel: No. 271388
2. BOMBAY :	5, Stadium House, Churchgate	„ 295212
3. CALCUTTA :	22 Loudon Street.	„ 445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	„ 51216
5. MADRAS :	1/155, Mount Road	„ 85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	„ 35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	„ 25753
8. BHUBANESWAR :	No. 17, Janpath, Babujee Nagar.	„ 50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	„ 25505
10. PATNA :	Biscomaun Bhawan, West Lawn	
11. HYDERABAD:	5-8-328, Chapel Road, Hyderabad-500 001	„ 36276
12. JAMMU :	Gumat Bazar, Jammu Tawi	

or

ANY OF OUR ACCREDITED DEALERS



# GANDHI SONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONOR,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHI SONS

'GANDHI BUILDING'  
232, Samuel Street  
BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



CARDAMOM

English monthly, July 1975

R. N. 1331

Price

Phone: 23

Established in 1959

Gram: ELAKAY

# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.

Kerala, India.



The best and foremost cardamom auctioning  
establishment in India.

**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Selection of all qualities of cardamom possible  
and any quantity of cardamom available.

We handle more than 60% of the cardamom produced in  
Kerala securing the highest prices.



# Cardamom



SEPTEMBER 1979



*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**

**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

*WINNERS*

**'CERTIFICATE OF MERIT'  
FOR THEIR MERITORIOUS EXPORT PERFORMANCE  
IN CARDAMOMS FOR THE YEAR 1971-72  
FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



## CARDAMOM BOARD

an: S. G. SUNDARAM I. A. S.

or: K. V. GEORGE

ty: K. G. NAYAR

### "CARDAMOM"

ders are invited to share their  
ces in the cardamom plantation  
through 'Cardamom'. Articles and  
s on achievements, failures and  
stories etc. related to all aspects  
plantation industry along with  
aphs if any, may be sent to us for  
ation. Selected materials will  
bly paid for.

*Chief Editor*

K. R. KURUP

*Editor*

C. P. SALEEM

## CARDAMOM BOARD

P. B. No. 1909

ERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

837, 33209

TELEX: 0885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

Vol. 11

SEPTEMBER 1979

No. 7

### *in this issue*

Editor's page	2
Bee - a friend of queen <i>Dr. Shankar B. Dandin and D. Kumaresan</i>	3
A new home to the queen of spices <i>R. Hali</i>	7
Market for cardamom - Norway	9
Publicity and propaganda	19
Monthly statistical abstract - July	21
Do you know?	23
Auction arrivals of cardamom	25
News and notes	27
Cultivation operations	33



## LOVE THE LABOUR

The plantation industry in our country is a labour-oriented 'institution' employing millions of workers. The income accruing from the plantations can be to a certain extent attributed to the blood and sweat of these millions who toil in the plantations in fair and foul weathers. If we keep this aspect in mind it will not be out of place to call them the 'other half' of the plantation industry.

The cardamom plantation industry in India employs about 1,50,000 workers and hence they are a major force to be reckoned with. One particular aspect of the cardamom plantations is that they are situated in the hilly tracts and hence the people associated with it, especially the work force, live in remote areas where most of the urban facilities are distant dreams. Sometimes they may have to fight against odd situations even for survival. In order to safeguard their interests the Union and State Governments have formulated many legislations from time to time.

Laws, Rules and Legislations are not enough to protect the interests of the labour, unless the planters themselves bestow better attention to the labourers as well. In cardamom plantations, the various seasonal operations are very important and the income from the plantations mainly depend on how best these seasonal planting operations are undertaken. It is in this context the close co-operation between the planters and the labour assumes greater significance. In order to motivate the worker to perform his duties with enthusiasm it is necessary that the planter should voluntarily come forward to safeguard his interests. Realising these facts, even the small cardamom growers are now doing their best to provide better amenities to the workers. He and his family should be given education, medical facilities etc. This will eventually turn out to be the help to planters themselves. By education, what we have in mind is not only the formal type of education, but also the training in various aspects of the industry such as the effective management of agricultural equipments, fertilizers, pesticides etc.

The Board is also at work for securing better amenities and incentives for the estate workers. Over the last few years the Board has successfully implemented various schemes aimed at the social, educational and financial uplift of the workers. To mention a few, the educational stipend scheme for the wards of cardamom plantation workers is now enjoyed by a good number of children, both in the school and college. This scheme is bound to have far reaching influence on the working class as it concerns with both the immediate and the distant future of the workers, their families and their community as a whole. The Board's grant to Educational Institutions have enabled the workers to have better educational facilities in the plantation area. So is the grant-in-aid given to Medical Institutions.

What is legitimately due to the worker should be given in full measure, that too in time, without hesitation. This will, no doubt, go a long way in maintaining industrial peace and better relations with the labourers thus increasing the production to meet the increasing demand for cardamom. ●



# BEE - A FRIEND OF QUEEN

DR. SHANKAR B. DANDIN\* AND D KUMARESAN\*\*

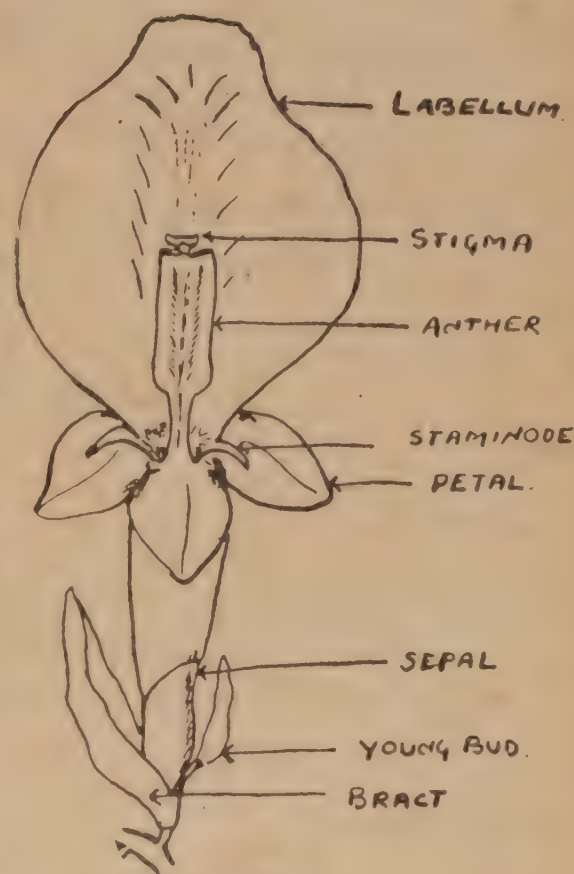
role of bees in augment-  
crop yield is an established  
more so in the case of cross-  
ated crops and crops with  
nophyllus type of flowers.  
ct any amount of moisture,  
izer, or cultural care given  
uch crosspollinated crops  
not show even a fraction of  
potential yield if bees or  
insect pollinating agents  
not available during their  
ring season. Cardamom is  
n exception to this. This  
s well established in other  
like Mustard (131%) Saf-  
er (511%) Niger (112%)  
ower (675%). Linseed  
(%) Onion (178%) Carrot  
(%), Radish (700%), Brinjal,  
) fruits like Musamb.Santra  
Coffee etc

certain crops genetic system  
variable degrees of genetic  
ity so that the self pollina-  
leads to corresponding fail-  
f fruit or seed set. In certain  
crops the floral modification  
h that they require an agent  
ollination inspite of their  
compatibility. In the absence  
linating agents, the chances  
tilization are remote and  
mom comes under this type  
p in which bee serves as  
ble agent of pollination.

## FLORAL BIOLOGY OF CARDAMOM

Cardamom flower is bisexual. The flower is adapted to ento-  
mophyllus type of pollination. The most conspicuous feature of  
flower is the large central white  
lip streaked with violet called  
labellum which stands as a flag  
to attract the insects for pollina-  
tion. The essential floral part  
stigma, is placed at a higher  
level by slender style which  
passes through another lobe. Anther is situated well below the  
stigma. The flower thus repre-  
sents what is scientifically called  
pin flower which is best adopted  
to avoid self pollination and to  
facilitate cross - pollination by  
means of an insect agent.

In cardamom, opening of the  
flower starts early morning at  
5 a. m. and continue upto 8 a. m.  
Maximum percentage of flower  
opening is between 6 and 7 a. m.  
Secretion of stigmatic fluid to  
provide a medium for pollen  
germination also takes place  
during this time. Correspondingly  
anthesis starts at 7 a. m. and  
continue upto 9 a. m. Anther  
bursts out releasing pollen grains  
which appear as a white creamy  
powder.



Nectar secreted from the nectar  
glands situated on either side of  
the ovary attract honey bees.  
However the time of opening of  
flowers and anthesis may slightly  
vary depending upon the diurnal  
atmospheric humidity and tem-  
perature.

Bee starts foraging in the mor-  
ning hours. Maximum bee popul-  
ation is observed between 7 a. m.  
and 11 a. m. In the misty days  
bee-visits will be postponed for  
an hour or two. The bee has a  
peculiar habit of visiting maxi-

\* Botanist, Indian Cardamom Research Institute, Myladumpara.

\*\* Research Assistant (Entomology), Indian Cardamom Research Institute, Myladumpara.



# V. N. SURULIVEL NADAR & BROTHERS,

CARDAMOM EXPORTERS,  
BODINAYAKANUR, S. India

Cables: "DIAMOND" BODINAYAKANUR

Phone No Office: 232

Residence: 255

Leading Export House for Cardamoms with Representatives  
All Over the World

WINNERS OF AWARD FOR OUTSTANDING EXPORT PERFORMANCE IN 1969-70  
AND LARGEST EXPORTERS OF CARDAMOMS FROM INDIA IN 1969-70  
1970-71, 1973-74 and 1974-75

WINNERS OF SPECIAL CERTIFICATE OF MERIT FROM SPICES EXPORT PROMOTION  
COUNCIL FOR 1973-74, BEING LARGEST EXPORTERS

## *Plantation Unit:*

- 1 THE VELLEMBILLERY ESTATE, MEPADI, Kerala State.
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, Kerala State
3. THE VELLARMALA CARDAMOM ESTATE, MEPPADI Kerala State

## *Auction Unit:*

M/s UNITED CARDAMOM AUCTIONEERS, SANTHANPARA, Kerala State

## *Our Special Grades:*

- "CAMEL" Brand Handpicked Green Cardamoms
- "TAJ" Brand Superior Bold Cardamoms
- "DIAMOND" Brand Special Green Cardamoms

ARE ALL WELL RENOWNED IN ALL ARABIAN COUNTRIES

Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to U. K., U. S. A., Continent, U. S. S. R.  
and East European Countries and Japan with a  
Reputation for Quality.

OUR MOTTO: GUARANTEED QUALITY AND STEADY PROGRESS



number of flowers in a  
ump and crawls all over the  
ther and stigmatic surface and  
s transports pollen grains  
om anther to stigma. Without  
e it is rather difficult to get  
it set in cardamom. It is re-  
rted that ants also serve as a  
llinating agent to a very little  
tent ( Pattanashetty et al.,  
78). But our observations pro-  
de no support for this point  
om an experiment in which only  
es were prevented from visiting  
owers. This illustrates the im-  
rtant role of bees as the sole  
ollinating agent in cardamom.

India has four types of bees  
hich serve as pollinating agents  
increasing the crop yield.  
ey are:

- Giant rock bee  
Aphis dorsata F
- The little bee  
Aphis florea F
- The Indian Honey Bee  
Aphis indica F
- Dammer bee  
Melipona iridipennis Dal

The first three have well deve-  
ped stings but the last has only  
vestigial one.

#### Giant Rock Bee

It is the largest of the honey  
ees. It builds an open single  
omb of about 1 metre in dia-  
eter. The comb is fully exposed  
ad hang on inaccessible bran-  
es of trees, on the sides of  
eep rocks in the forest and even  
a walls. It produces plenty of  
oney and the annual yield from  
colony is about 35 kg. It is  
ossible to domesticate this  
e because of its irritable and  
rocious nature. This type of  
ees usually visit cardamom

flowers in the early hours of the  
day.

## 2. The Little Bee

It is known as little bee since  
it is the smallest of the three  
species of Aphis. It is seen only  
in plains. It also builds single  
but small combs on bushy plants  
and corners of roofs. It yields  
very little honey, about 0.5 to  
1 kg. per year from a colony.  
This is seen rarely in cardamom  
estates due to high altitude and  
other environmental conditions.

## 3. The Indian Honey Bee

It is the popular Indian bee  
found both in forests as well as  
in plains, throughout our country.  
It is smaller than the rock bee  
but larger than the little bee. The  
Indian bee builds many parallel  
combs in cavities of trees, caves  
and such other hidden sites. It  
is mild and is the only type  
which can be domesticated. The  
annual yield of honey is 2 to  
5 kg. per colony. This is the  
most important species of bees  
working as pollinating agents.  
The Indian honey bee is usually  
seen in cardamom plantations  
from 7 to 11 a. m in large num-  
bars.

A race of this species is found  
in the hilly tracts of South India.  
The hill bee is larger in size and  
darker in colour than the race  
found in the plains and has the  
habit of moving away from  
broods even at slight disturbance.

## PESTICIDES AND HONEY BEES

Pest problem is one of the con-  
straints in cardamom produ-  
ction. In order to get good qua-  
lity of cardamom, the crop should  
be protected from pests. Hence,

application of pesticides becomes  
unavoidable in cardamom plant-  
ation. Honey bees are also ess-  
ential for pollination. It is found  
that bee is the only pollinating  
agent in cardamom flowers. Most  
of the pesticides used at present  
are toxic to bees. However some  
pesticides are less toxic to them.

In the wake of soaring demand  
for cardamom, our aim should be  
to increase the acre yield of car-  
damom. This can be achieved by  
installing more bee-hives and  
thereby increasing pollination.  
Under such conditions, efficient  
pest and bee management is  
essential.

## Pesticide management

- I. Dust formulations are usually  
more hazardous to bees than  
emulsions and granules.
- II. Apply insecticides late in the  
evening or early in the  
morning hours. If it is not  
convenient, the application  
can be done when bees are  
not foraging in the field.
- III. Use insecticides having low  
residual poison.  
(Use of systemic insecticides  
preferably)
- IV. Limit the number of appli-  
cations to the minimum.
- V. Select insecticides which  
are less harmful to bees.

## Pesticides and their toxicity to bees

In choosing the right type of  
pesticide refer the following  
list which is by no means  
exhaustive.

- I. Highly hazardous at any time  
on blooming crops  
Azinphos methyl, carbaryl,  
carbafuron, chlorphyrifos,



diazinon, dicrotophos, dime-  
thoate, fensulphothion, mala-  
thion ULV, methamidophos,  
mevinphos, monocrotophos,  
parathion, phosphamidan.

**II: Minimal hazard if applied  
during late evening, night or  
early morning on blooming  
crops**

Acephate, carbophenothion,  
demeton, dioxthion, disulfo-  
ton EC, endosulfan, ethion,  
leptophos, methocychlor pho-  
solone, toxaphene.

**III. Minimal hazard on blooming  
crops**

Carbofuron G, dicofol, disul-  
foton G, fensulfathion G,  
Lime Sulfur, oxythiquinox,  
pyrethrum, rotenone, ryania,  
sulfur.

**Bee Management**

1. In case of insecticidal appli-  
cations at the time of flowering

on bee forage crops, a 10%  
mortality of field bees is con-  
sidered to be the maximum  
tolerance level and any insecticide  
which may result in a higher  
mortality should not be used.  
If highly toxic pesticides have  
been used, the bees can be  
prevented from visiting the  
treated fields by closing the  
hive entrance with wet cloth for  
24 hours. When atmospheric  
temperature is high, water must  
be sprayed on the cloth very  
frequently.

2. Provide water source inside  
the colony.

3. Feed the colonies with pollen  
and sugar syrup.

Recognising the role of honey  
bees in increasing cardamom  
production, a series of experi-  
ments have been taken up at the  
Indian Cardamom Research

Institute, Myladumpara.  
specific recommendations  
be given on the selection,  
and method of application  
pesticides in cardamom  
plantations, all known precau-  
tions, all known precau-  
tions will have to be taken to pro-  
tect bee population in carda-  
mom plantations.

**Reference**

1. Keep bees increase  
yield Tech. Bull CBRI P
2. Tech. Bull No. 8 July  
CBRI, Pune.
3. Sharma M.S, Visweshw  
91969) Some suggest  
for breeding cardam  
Cardamom News, July
4. Mayne W.W. (1951) Re  
on cardamom cultivation  
South India, ICAR, Bull  
50.

**CHALLENGE OF OUR TIME.....**

Once, a Bank was just a trust for a man's wealth.  
Today, it's also a trust for a society's aspirations.  
To lend new dignity and new meaning to human life.

**MEET THE CHALLENGE.....**

**YOUR OWN BANK**



**STATE BANK OF TRAVANCORE**  
(The premier Bank of Kerala)

"Buy Rajaji Coupons available at all our metropolitan and urban branches"

Head Office: TRIVANDRUM

**K. S. T. PANI**  
Managing Director



# A NEW HOME TO THE QUEEN OF SPICES

R. HALI \*

The Arab's love for spices is well known and among the Indian spices cardamom is dearer to them than this is so for the last 5000 years. It is believed that cardamom and cinnamon are the first among the spices to reach the Middle East. Even today serving of cardamom flavoured coffee — "Gahwa" — to guests is a symbol of the rich Arab hospitality. With the Arab prosperity at its peak, the craze for cardamom in this part of the world is touching new heights. The total Indian production of cardamom is about 500 tonnes. Saudi Arabia alone consumes about 34 % of the total export of cardamom from India. The fascinating price of cardamom provides enough temptation to enterprising farmers to undertake several self-designed experiments. Shri Ravindran Nair of Peringamala in Kottayam District has a very interesting story to narrate about his successful attempt to grow cardamom at an altitude of 200 meters above sea level. Lifting the flower panicle of the cardamom plant Shri Nair revealed his fascinating experience "I had the privilege of working as a Cardamom Board official in Saklespur area of Karnataka for five years. In 1970 I brought twenty capsules of Malabar variety of cardamom and sowed them in a flower pot during the month of September.

The seeds were treated with wood ash before sowing. Later, they were covered with a layer of sand on which a layer of straw was spread as mulch. It took 25 days for the seeds to germinate. The seedlings were grown in the nursery with very great care and in eight months they produced

eight leaves. The growth was quite satisfactory".

Shri Ravindran who is at present working in the Department of Agriculture as a Junior Agricultural Officer, continued his narration about the planting of the seedlings in the 'Main field'. "Pits were prepared at 1.5 feet cube and were filled with top soil and well rotten compost. After transplanting the seedlings a mulch with straw and dried leaves were provided". According to Shri Nair great care was given for keeping the soil wet



\* Principal Information Officer, Farm Information Bureau



during the summer though the seedlings were planted in the shade of coconut and mango trees.

"The panicles emerged during May 1973 and it continued during the months of June, July and August. The fruits were collected from September to January."

"The fruits have all the qualities of the Malabar variety", claimed Shri Ravindran Nair. He showed us nine plants grown successfully in his garden. "I could collect 900 gm. of fruits from a plant but since I was not staying at home during the last three years the care bestowed to the plants was not enough".

It may be remembered here that the cardamom plants which won the hearts of thousands of visitors in the Kerala pavilion at the

AGRIEXPO Exhibition held at New Delhi in 1977 were supplied by Shri Ravindran Nair.

Shri Nair is keeping two beehives close by the cardamom plants to promote better pollination. The medicinal quality of honey collected from the cardamom gardens and rubber gardens is a matter to be investigated. One Ayurvedic Physician is of the opinion that there will be difference in quality between the two. He claims the honey collected from the forests is always preferred for preparing Ayurvedic medicines to the honey collected from rubber estates. Also the honey collected from cardamom is believed to be superior.

"Few cardamom plants can be grown without any difficulty under the shade of trees in the

midland areas provided one keep the land wet during summer and give some special care." Shri Ravindran Nair revealed that no attack of the and Katte diseases was noticed here. So far he has tried organic manures and no special plant protection care has been given to the plants.

Shri Nair's experiment rightly deserve special attention and believes that if seedlings provided, several farmers in the area are prepared to give a try to this novel venture. Side by side with this, research on systematic cultivation in plains also should be undertaken for evolving suitable package of practices. Why should the Queen spices remain in the mountains alone? Let her come down the hillocks and plains too.

Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

## TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

Factories at :

- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. KONUR   |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.



*Following is an excerpt on Norway from the report on the market survey jointly carried out by Cardamom Board and International Trade Centre, Geneva in the Middle East and West European countries. The survey team consisted of Shri N. Bharathan Pillai, Market Development Officer, Cardamom Board and Mr. Brian Mc. Loughlin, Marketing Consultant, International Trade Centre, Geneva. Excerpts on Kuwait, Bahrain, Iran, Qatar, Saudi Arabia, United Arab Emirates, Sweden, Finland and Federal Republic of Germany appeared in the preceding issues of "Cardamom"*

—Editor

## NORWAY

In contrast to Sweden and Finland, the market for cardamom in Norway is relatively small. The principal source of supply is Guatemala and the main usage of cardamom is, in the manufacture of coffee cake. There is, therefore, domestic usage and rather larger demand from industrial plant bakeries.

### IMPORT HISTORY

Mean imports of cardamom to Norway between 1971 and 1975 were 38.2 tonnes. The import pattern has been erratic. Peak imports in the period under review were 43 tonnes in 1974; in the following year the total imports were only 31 tonnes. Full details of the imports of cardamom to Norway are set out in Table-2.

In terms of share, India has declined from 24.3 per cent of imports in 1971 to 3.2 per cent in 1975. Guatemala is the main supplier to the Norwegian market and accounts for 56 to 59 per cent of all cardamom imports

during the period from 1971 to 1974. In 1975, the Guatemalan share of the market dropped to under 50 per cent—to 48.4 per cent—for the first time in recent years. Tanzania, the third major supplier to the Norwegian market, has shown a consistent upward trend. In 1972 they sold no cardamom to Norway, yet by 1975 the Tanzanian supplies accounted for 22.6 per cent of all imports. As the following table shows, imports from other non-producing sources are a major factor in the Norwegian market.

The non-specified imports (Table-1) are from Hamburg, an important source of supply for the Norwegian market.

Exports of cardamom from India to Norway, as illustrated in Table-3 are so small that it is impossible to draw any valid conclusions from the data.

### USAGE

Norway is primarily a market for medium and low grades of cardamom. In addition to coffee cake, cardamom is used in the baking of the traditional Norwegian Christmas cake and, to a

Table-1  
SHARE OF IMPORTS - VOLUME BASIS

	1971 %	1972 %	1973 %	1974 %	1975 %
India	24.3	34.2	15.4	4.7	3.2
Guatemala	59.5	56.1	53.9	58.1	48.4
Tanzania	2.7	—	10.3	14.0	22.6
Others	13.5	9.7	20.5	23.2	25.8
TOTAL:	100.0	100.0	100.0	100.0	100.0

Source: Compiled from National Foreign Trade Statistics - Norway.



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

Gram: " PEEACEE "

Phone . 3 3 6

*AUCTION CENTRE:*

**VANDANMETTU (Idukki Dist.)**

Phone: 45

*Head Office:*

**329 Main Road, Cumbum-626 516, Madurai Dist.**

*Branches:*

**VANDANMETTU (Idukki Dist.)**

**PAMPUPARA                   "**

**CHENKARA                   "**

**NARIYAMPARA           "**

**PARATHODE**

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



Table-2

IMPORT OF CARDAMOM INTO NORWAY - BY SOURCE  
DURING 1971 TO 1975

Year	Source	Quantity		Value
		(M, T.)	(Rs. '000s)	(\$ '000s)
1971	India	9	430	59.6
	Guatemala	22	830	115.0
	Tanzania	1	41	5.7
	Others	5	124	17.2
	TOTAL	37	1,425	197.5
1972	India	14	372	46.5
	Guatemala	23	602	75.1
	Tanzania	—	—	—
	Others	4	192	24.0
	TOTAL	41	1,166	145.6
1973	India	6	230	28.3
	Guatemala	21	932	114.5
	Tanzania	4	172	21.2
	Others	8	493	60.6
	TOTAL	39	1,827	224.7
1974	India	2	169	20.9
	Guatemala	25	1,180	146.1
	Tanzania	6	248	30.7
	Others	10	536	66.4
	TOTAL	43	2,133	264.1
1975	India	1	76	8.5
	Guatemala	15	716	80.1
	Tanzania	7	267	29.9
	Others	8	470	52.6
	TOTAL	31	1,529	171.1

SOURCE: National Foreign Trade Statistics - Norway

very limited extent, in the manufacture of sausages and other processed meat products.

Consumption of coffee cake in Norway is traditional. In the past it was all home-baked and whole bleached cardamom were purchased by the Norwegian housewife for this. Today, the coffee cake is available ready-made by plant bakeries and sold through normal grocery retail outlets. There is still, however, a significant level

of domestic baking of coffee cake and in recent years, with Norway suffering the effects of the worldwide economic recession, home-baking of coffee cake has tended to increase.

The consumption pattern of coffee cake, and of cardamom, in Norway is seasonal. Trade sources suggest that 40-50 per cent of all cardamom imported into Norway is sold, either to retail consumers direct or in the form

of coffee cake, during the last three months of the year, viz: October, November and December.

There are approximately 800 individual bakeries in Norway, the majority of them being small and localised in their coverage. These bakeries account for between 50 and 60 per cent of total cardamom consumption,

The balance of the market consists of retail sales of cardamom, either in the form of seeds or ground cardamom and, to a very limited extent (not more than 2-3 per cent of the market), as whole cardamom.

## CONSUMER PATTERNS

Norway is a highly developed consumer market. The population is 4.0 million, concentrated in the southern part of the country. Average household size is 3.1 persons and the male / female balance is 49.7 per cent male and 50.3 per cent female.

Over a quarter of the population live in the Oslo trading district. Outside the major cities, because of the characteristics of the terrain which is very mountainous, there are major problems of distribution of grocery products in Norway. This has led to concentration of the retail trade, as can be seen from the subsequent section of this report.

In recent years there has been a boost in the Norwegian economy following the discovery of substantial crude oil and gas resources in the Norwegian segment of the North Sea. Much of this additional revenue has been routed into social welfare benefits.



**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available to  
planter**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**  
(A Govt. of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekandeswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



Table-3

EXPORT OF CARDAMOM FROM INDIA TO NORWAY  
DURING 1971-72 TO 1975-76

Year	Grades	Quantity		Value	
		(M. T.)	(Rs. '000s)	(\$ '000s)	
1971-72	Alleppey Green	9	217	28.5	
	Coorg Green	Neg.	9	1.2	
	Bleached/Bleachable	—	—	—	
	Seeds	—	—	—	
	Mixed	—	—	—	
	TOTAL	9	226	29.7	
1972-73	Alleppey Green	7	169	20.9	
	Coorg Green	—	—	—	
	Bleached/Bleachable	—	—	—	
	Seeds	—	—	—	
	Mixed	—	—	—	
	TOTAL	7	169	20.9	
1973-74	Alleppey Green	3	92	11.4	
	Coorg Green	—	—	—	
	Bleached/Bleachable	—	—	—	
	Seeds	—	—	—	
	Mixed	—	—	—	
	TOTAL	3	92	11.4	
1974-75		—	Nil	—	
1975-76	Alleppey Green	1	29	3.3	
	Coorg Green	—	—	—	
	Bleached/Bleachable	—	—	—	
	Seeds	—	—	—	
	Mixed	—	—	—	
	TOTAL	1	29	3.3	

SOURCE: Cardamom Board, India.

#### DISTRIBUTION

Distribution patterns in Norway are highly concentrated. Two wholesaler-financed buying groups, K. K. and U. N. I. L., alone account for 60 per cent of food distribution in Norway, while the co-operative accounts for approximately 24 per cent of total retail food sales. A further buying group, K. O. F. F., which is financed by retailers, accounts for 10 per cent of grocery turnover. Each of these retailing

units buys centrally, which means that there are only four significant buying points for grocery products in Norway.

In the industrial side of the market in Norway, there are approximately 800 bakeries, all of whom purchase some quantities of cardamom for the production of plant-baked coffee cake and Christmas cake. The Co-operative movement in Norway owns twelve bakeries and these are believed to account for the major

portion of coffee cake and Christmas cake turnover. They supply directly to the 1,800 co-operative stores.

All cardamom sold in Norway, whether to the industrial segment or the consumer segment of the market, is sold under local brand names. Two local brands account for some 80 per cent of total retail sales of cardamom. 'Black Boy' accounts for between 50 and 60 per cent of all sales, while the 'Hindu' brand probably accounts for a further 20 per cent. The Co-operative's own label brand averages 15 per cent of total cardamom sales in the retail segment of the market.

Detailed brand shares are not available for the industrial segment of the market, which is supplied through specialised bakery wholesalers who carry a wide range of bakery sundries. The co-operative bakeries are supplied direct by the central co-operative movement which also supplies the prepacked cardamom sold in the co-operative retail stores.

Trade margins in the retail segment of the industry are high. The average wholesaler mark-up of cardamom is about 30 per cent and the standard retail margin on cardamom and other spices is 36.66 per cent. The high levels of margin form part of an informal agreement between the retail trade and the Norwegian Government, which permits high margins on non-essential grocery products, while on essential products the margins are controlled. In the industrial segment of the market the wholesale margin is normally between 10 and 15 per cent.



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337

♦

*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms for the year 1973-74 from the Ministry of Commerce, Govt. of India and also from the Spices Export Promotion Council, Cochin and shield for 1975-76 from the Spices Export Promotion Council, Cochin.

♦

Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"

IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



The principal characteristics of the distribution system for cardamom in Norway have been a fall in the importance of the bakery segment of the market. While there has been some compensatory increase in direct consumer purchases of cardamom, the general trend, in consumption, as seen by the distribution trade, is downwards.

Cardamom is sold at the retail level in 5 g. foil packs retailing at about NKr 2.90, in 10 g. cartons retailing at NKr 4.65 and in 25 g. cartons retailing at NKr 7.90. The principal spice millers also produce a 35 g. jar which is mainly used in the catering segment of the trade, while the industrial market segment is supplied with 1 kilo packs. Virtually all consumption whether in the domestic or industrial market segments, is of ground cardamom. In the domestic segment cardamom is marketed as part of an integrated range of spices and herbs. For example, one major packer produces 55 different spices and herbs in the standard 5 g. pack. And in the 35 g. jar size, which is mainly aimed at the catering industry, the same manufacturer retails 23 different spices including cardamom.

## IMPORT PRACTICES

Because of the relatively small quantities of purchases involved, the main importers of cardamom to Norway tend to buy through cardamom traders. In Hamburg, rather than negotiate themselves direct with the exporting countries. Trading through Hamburg is more convenient for the importers and results in the

Norwegian market being a particularly difficult one for cardamom exporters to penetrate.

The main purchaser considerations for cardamom are price and quality. Quality in the Norwegian market can be defined in terms of litre-weight. Most packers in Norway regard 400g. per litre as the minimum acceptable standard. They are not concerned at all with the external appearance of the cardamom since virtually all is ground before it is sold to the consumer or to the industrial user.

Historically, the prime source of imports has been Guatemala, though in recent years supplies from Tanzania have become more important. The actual source of supply is, however, of relatively low importance for the Norwegian importer. Their main consideration is price; in the industrial market segment high prices have led to substitution of Large Cardamom and cardamom substitutes based on a mixture of cardamom oil and bran.

All cardamom bought by the Norwegian Co-operative is bought centrally through N.A.F. in Copenhagen, who also buy cardamom on behalf of the Finnish, Danish and Swedish Co-operative Societies.

Typical qualities for the Norwegian market are Guatemalan mixed green or Tanzanian sun-dried. Equivalent Indian qualities would be AGS 1 and AGS 2. The sector of the importing trade who supply the meat industry, tend to purchase ground cardamom from Hamburg traders. However, this segment of the

market accounts for only approximately 5 per cent of total imports to Norway.

The trend of purchase of cardamom from intermediate points, such as Hamburg, Amsterdam and Copenhagen, is expected to continue in Norway. In view of the relatively small quantities required by even the largest Norwegian importers, to deal with an intermediate trading point is considerably more convenient. Shipments can be arranged by telephone and payment terms adjusted to suit the purchaser. When buying from Hamburg, Norwegian importers can rely on consistent quality. The Norwegian importers believe that Hamburg cardamom traders supply the particular qualities they require and that there will be no variation from the importer's specification. In contrast, all the major importers claim that they have experienced considerable variation between the sample supplied by the Indian exporters and the bulk quantity delivered against that sample. Accordingly, they see little point in resuming business directly with Indian exporters, unless the problems of quality standards are eliminated.

The Letter of Credit rule creates a barrier against direct dealing by Norwegian importers from India. Norwegian importers will not incur an additional cost of between 1 and 2 per cent and additional administrative problems in opening Letters of Credit, when in their dealings with Hamburg traders they can operate on a Cash against Documents basis, or even on consignment.



# **Associated Cardamom Auctioners (Private) Limited**

(Regd. Office: XXXV/543, Warriam Road,  
COCHIN-16)

This year we quietly enter the field of Cardamom  
auction for better services to the planters,  
Dealers and Exporters.

Selection of any type of cardamom is available  
at our auction.

**AUCTIONS ARE CONDUCTED AT  
KALLAR, VATTIAR P.O.  
ON EVERY WEDNESDAY**



There is no duty levied on imports of cardamom to Norway.

There has been no promotion of cardamom in Norway.

## DEMAND ASSESSMENT

The underlying statistical trend in imports of cardamom to Norway, is downwards. The view of traders in the market also corroborates the direction of this trend and attributes the decline principally to lower consumption in the industrial sector of the market.

In the five years 1971-1975, the latest for which statistical data is available, the overall decline trend has been about 2.4 per cent per annum. There has, however, been considerable fluctuation about the trend line. Moreover, the downward trend has, according to trade sources, become more acute in 1976 and 1977, as the full effects of the world wide economic recession have been felt in Norway. A further contributory factor to the decline has been the marked upward trend in prices of cardamom, particularly during 1976-1977, which has led to a reduction in the quantity of cardamom used by the bakery industry.

Looking to the future, it is difficult to see any major recovery in volume in the Norwegian market. The consumption in coffee cake and special Christmas cakes is seasonal and there is already considerable evidence of consumer resistance to further increase in price. The marked trend is a further reduction of the quality of cardamom being imported to Norway. This is already evident

from the increase in volume imported from Tanzania of sun-dried cardamom.

For Indian exporters there are market opportunities in Norway. For this to be realised, it will be necessary for exporters to improve the service which they provide to the Norwegian importers to a level which is competitive with the service rendered by the cardamom trade in intermediate trading centres, particularly Hamburg.

## PROPOSED STRATEGIES

The size of the Norwegian market for cardamom is too small to justify any promotional activities in conventional terms. The objective must be to halt the decline in volume sales to Norway and the strategies that are appropriate to this objective are organisational and administrative, rather than promotional.

The first task of the Indian cardamom industry in Norway must be to improve the reputation of Indian cardamom among the importing trade. Exporters must appreciate that Norway is a market only for lower grades such as AGS, AGS 1 and AGS 2. All quantities supplied must be completely consistent with the sample on which the order was placed and shipment dates must be adhered to. Efforts must also be made by exporters to ensure that all supplies destined for the Norwegian market are shipped by the most efficient route, since there is concern that the delay in shipments from India can leave importers out of stock during the seasonal demand peak.

## Annex PRINCIPAL IMPORTERS OF CARDAMOM - NORWAY

Norges Kooperatiive  
Landsforening, (1)  
Ravlerstrødet 2,  
Oslo.

H. Chr. Olsens Eftf, A/S,  
Østerdalsgt. 1,  
Oslo-6.

T. S. Toftdahl A/S,  
Bekkelagskaia 2,  
Oslo-1.

Pals A/S,  
Pilestrødet 75 C,  
Oslo-3.

Nors Krydderprodukter A/S,  
Heimdal,  
Trondheim.

Arendal Specerimolle &  
Tepukkeri,  
Batteribk-2,  
Arendal.

(1) Buys through NAF, Copenhagen.

---

## Microwave Weed Control

Australian researchers are experimenting with microwave techniques of weed control.

They believe that if they can develop efficient microwave devices to selectively kill harmful weeds in crops, the use of toxic herbicides could be greatly reduced.

The research programme is under way at Deakin University at Geelong, Victoria, where engineers and biologists are combining in laboratory studies which they hope will lead to the development of equipment for field trials.

---



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N.	P.	K.
40 (38)	80 (40)	80



For Particulars

## T. STANES & COMPANY LIMITED

### AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 33518

OR

### Our FACTORIES and Branches:

- |    |                         |            |
|----|-------------------------|------------|
| 1. | Avaniapuram (Madurai    | — 625 012) |
| 2. | Ettumanoor (Kottayam    | — 686 631) |
| 3. | Calicut (Malabar        | — 673 004) |
| 4. | Kanimangalam(Trichur    | — 680 007) |
| 5. | Mangalore (South Kanara | — 575 006) |
| 6. | Palghat (Kerala         | — 678 001) |
| 7. | Shimoga (Karnataka      | — 577 201) |



## PUBLICITY & PROPAGANDA

The Publicity and propaganda measures of the Board are so designed as to accelerate the overall growth of the Indian Cardamom Industry. The Board has, from its inception, made use of various communication media in order to achieve the twin objectives of increasing the production of quality cardamom and promoting the marketing of cardamom in India and abroad. These activities include publication of a monthly magazine, organisation of publicity campaigns, participation in exhibitions in India and abroad, advertising, press and public relations etc.

### PUBLICATIONS

In order to keep constant touch with the various sections of the community and also to disseminate useful and timely information to them, the Board brings out a number of publications on a regular basis. These publications include a magazine, a weekly bulletin and a number of production/promotional literature released from time to time. The magazine stands for the all round development of cardamom industry covering a wide range of topics such as cultivation, processing, exports, and a host of other aspects relating to the industry. Each

issue is simultaneously brought out in four languages, viz. English, Malayalam, Kannada and Tamil.

### CAP

Availability of market information is the basic requirement for successful marketing. Realising this fact the Board started the publication of a weekly price bulletin entitled CAP(Cardamom Auction Prices). The bulletin gives detailed account of the prevailing prices of cardamom at various auction centres in Kerala, Karnataka and Tamil Nadu. This publication which reaches all planting areas within the shortest interval enables the growers to bargain for the maximum price for their produce.

### CARDAMOM COMPANION

This is another useful reference book brought out every year which contains information on the Board, its development activities and various other relevant information pertaining to the cardamom industry.

### PUBLICITY CAMPAIGNS

As a part of its intensive drive to increase production of cardamom, the Board conducts publicity campaigns in various cardamom tracts. These campaigns are usually organised making

use of all printed and audio-visual media like pamphlets, cinema slides, wall posters, newspapers, group meetings, press releases, AIR features etc. etc. Such campaigns help to educate the planters of the importance of adopting scientific methods of cultivation. Besides it also helps the Board in simultaneously maintaining a better rapport with the cardamom community. Some of the campaigns conducted in the past include Azhukal, Katte, weeding, mulching, afforestation, marketing, etc. etc

### EXHIBITIONS

Board's participation in exhibitions, both internal and international, is aimed at educating the growers/traders/public on various aspects of the industry besides export promotion and institutional publicity. Every year the Board participates in a number of exhibitions with this objective. The Board also releases advertisements in Indian journals for disseminating information on developmental programmes of the Board and for popularising the end-uses of cardamom. Articles, radio features, press releases etc. are also issued from time to time covering all aspects of cardamom, and developments in the cardamom plantation industry.



# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM

PREMIER OFFERS MORE :

- 1 ECONOMICAL CAPITAL COST.
- 2 STRONG, RELIABLE EQUIPMENT.
- 3 **FREE** TOTAL IRRIGATION PLAN SURVEY TO COMMISSIONING

Specialised and efficient equipment engineered at the lowest capital cost for your plantation.

## SPRINKLERS

Spray water overhead gently and evenly, like rain. Regulated supply prevents water wastage. Creates humid atmosphere necessary for cardamom cultivation.

## COUPLING VALVES

New and exclusive to Premier Systems. Sprinklers are moved and reconnected easily and quickly. Less labour. More irrigation.

## PIPELINES

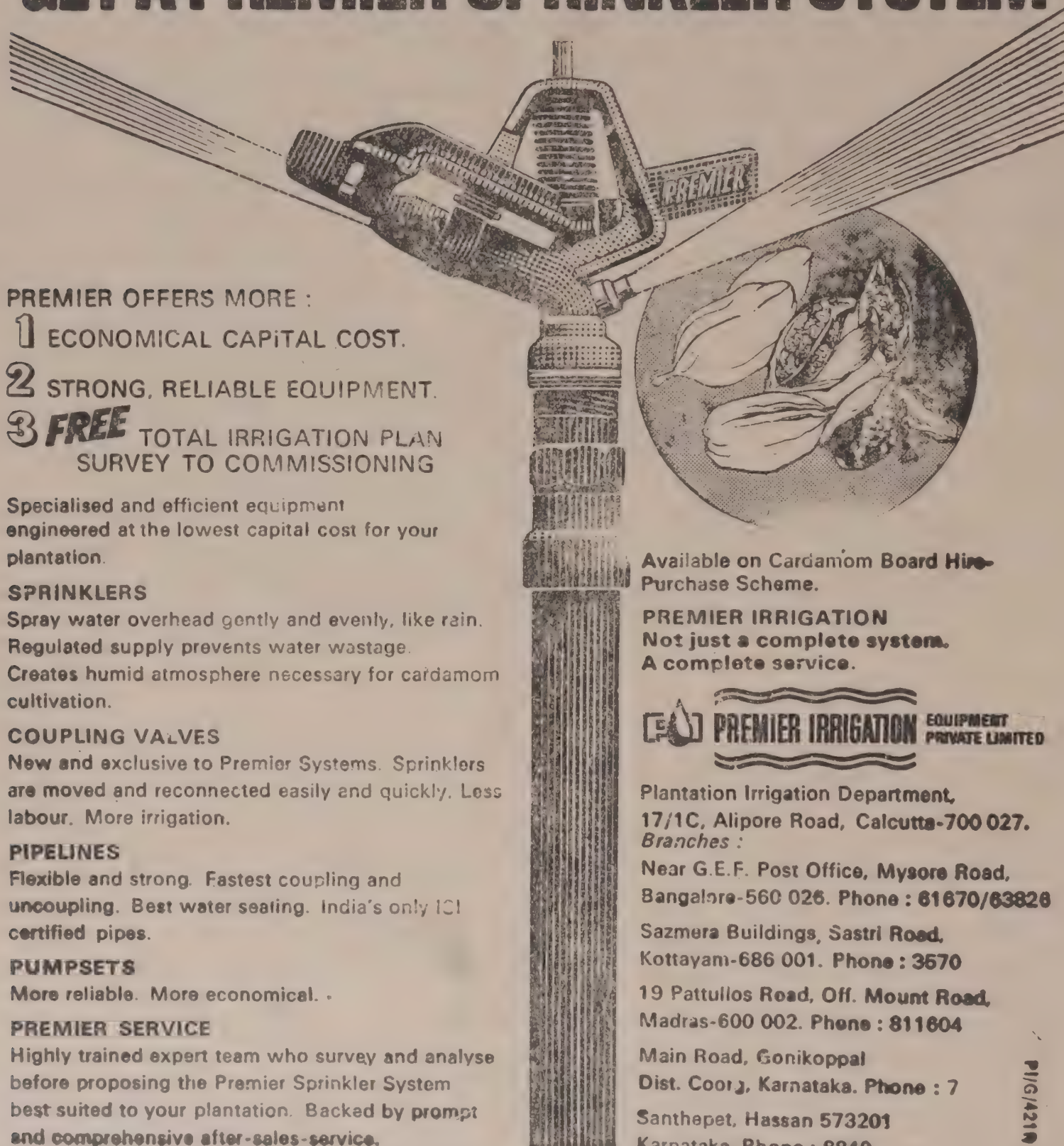
Flexible and strong. Fastest coupling and uncoupling. Best water sealing. India's only ICI certified pipes.

## PUMPSETS

More reliable. More economical.

## PREMIER SERVICE

Highly trained expert team who survey and analyse before proposing the Premier Sprinkler System best suited to your plantation. Backed by prompt and comprehensive after-sales-service.



Available on Cardamom Board Hire-Purchase Scheme.

**PREMIER IRRIGATION**  
Not just a complete system.  
A complete service.



Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
Branches :

Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 61670/63828

Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570

19 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604

Main Road, Gonikoppal  
Dist. Coorg, Karnataka. Phone : 7

Santhepet, Hassan 573201  
Karnataka. Phone : 8840



# Monthly Statistical Abstract-July

## PRODUCTION

The final estimate of production for 1978-79 based on auction sales and direct sales by planters is placed at 4000 M.T. with state-wise break up as:

Kerala	— 2900 M. T.
Tamilnadu	— 300 „
Karnataka	— 800 „
Total:	— 4000 „

The preliminary estimate for 1979-80 is placed at 4500 M. T. The State-wise break up is as follows,

Kerala	— 3400 M. T.
Tamilnadu	— 300 „
Karnataka	— 800 „
Total:	— 4500 „

## AUCTION SALES&PRICES

State-wise sales and weighted average prices for July 1979 and the cumulative position during 1978-79 season with comparative position for the previous season are given below.

State	July '79		July '78		Aug-July '79		Aug-July '78	
	Qty. (MT)	Av. price (Rs/kg)	Qty. (MT)	Av. Price (Rs/kg)	Qty. (MT)	Av. Price (Rs/kg)	Qty. (MT)	Av. Price (Rs/kg)
Kerala	—	—	—	—	2416	178.71	2300	142.55
Tamilnadu	14	129.79	4	138.34	226	137.06	156	116.61
Karnataka	9	143.11	@	135.41	711	133.98	541	104.93
Total:	23	134.92	4	138.32	3353	166.42	2997	134.41

In Kerala auction sales were over by the end of March 1979. But in Tamlinadu and Karnataka auction sales are continuing. In 1978-79 the prices at auctions are better than in previous year.

The new crop for the season 1979-80 has already arrived in Kallar and Santhampara. The auction details for the current crop are given below.

## CURRENT AUCTIONS (1979-80)

Centre	Date	Qty. Sold (kgs.)	PRICES (Rs/kg)		
			Max. Price	Minimum Price	Average Price
Kallar	8-8-79	1660	170.00	73.00	149.60
	3-8-79	3474	167.10	107.10	149.42
	15-8-79	1892	158.70	77.00	148.00
Santhampara	3-8-79	2547	170.10	35.00	149.00
	13-8-79	1197	164.20	41.00	148.95
Total:		10770	170.10	35.00	149.14

Source: Reports from licensed auctioneers.

## EXPORTS

Export of cardamom during July '79 was 106 M.T. worth Rs 1.99 crores, as per the reports received from the customs

authorities based on shipping bills passed and cess/duty collected. So far we have received only reports of 43 M.T. worth Rs.79.02 lakhs for July '79 from the exporters of cardamom. The unit value realised during July'79 was Rs. 186.61 per kg as against Rs 196.81 per kg. during July '78.

According to reports from Customs Authorities the export of cardamom during April'79 to July '79 totalled to 644 M.T. worth Rs. 12.06 crores with a unit value of Rs. 187.20 as against 580 M.T. valued at Rs. 10.06 crores with unit value of Rs.173.30 per kg during April '78 to July '78.

Exports during April to July'79, has increased by 11% in terms of quantity and about 20% in terms of earnings when compared to the previous years' performance.



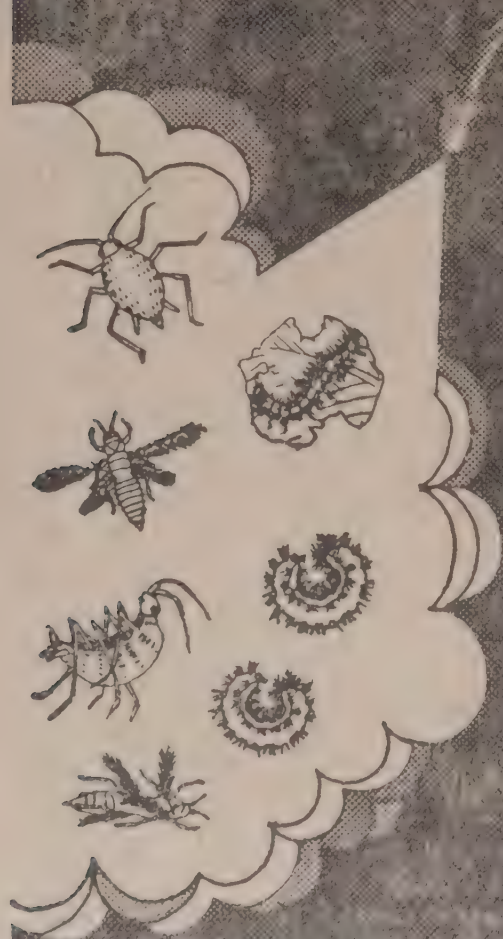
**VOLTAS**

# zolone

Insecticide-cum-Acaricide



**puts extra power  
in your hands  
to protect your  
cardamom.**



Harmless to bees,  
parasites and  
predators of crop pests

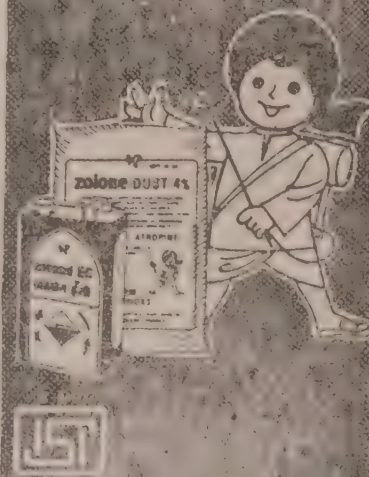


Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- \* Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- \* Has a local penetration action, so is also effective against sucking pests.
- \* Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- \* Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- \* Recommended as part of integrated pest control programmes.
- \* Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by  
**VOLRHO LIMITED**  
Secunderabad 500 003

Marketed by  
**VOLTAS LIMITED**  
Agro-Industrial Products Division  
Bombay • Calcutta • Madras  
New Delhi • Bangalore • Ahmedabad  
Secunderabad • Cochin • Bhopal.





## OFF-SEASON EXPORT

Export during the off-season period April '79-August '79 is estimated as 700 M.T. with an earning of Rs.13 crores of which 644 M.T. valued Rs.12 crores have already been exported during the period April 79-July 79.

## ANTICIPATED EXPORTS FOR 1979-80

The provisional export target for 1979-80 is placed at 3200M.T. with earnings of Rs.64 crores. If production goes up to 4800 M.T., the export may also go up to 3500 M.T. with earnings of Rs.70 crores. The unit export price anticipated for 1979-80 is around Rs.200/-per Kg. ●

## Trade Enquiries

Hassan Al-Ajmi Trading Est.,  
Export & Import &

Commission Agent,  
P. O. Box 46749,  
Fahaheel,  
KUWAIT.

Tel: 919341

Cable: ABUHARDAN

United States Orient Agencies,  
Inc.,

110, West 40th Street,  
New York, N. Y. 10018.

## SINGAPORE

Variety	Prices during June 1979	
	S\$ per picul	Rs./kg.
Cardamoms, White "AB"	2300.00	136.53
Cardamoms, Wild-Nepal	500.00	29.68

Note: One picul = 60.47 Kg.

1 S\$ = Rs. 3.59

Source: High Commission of  
India, Singapore.

## DO YOU KNOW ?

### Cardamom for Mothers

It is common among certain people in Madhya Pradesh to give cardamom boiled water to mothers during the first 21 days after confinement as a medication. They believe that by drinking cardamom boiled water regularly, the mother's belly will shrink and that the breast milk will become pure. The children who drink such breast milk, are comparatively free from attack of 'Ring Worm' etc. It is quite simple to prepare cardamom boiled water. About 300 ml of water with 8-10 crushed capsules of cardamom is boiled to reduce to 150 ml and served to mothers twice a day, one in the free stomach, early in the morning and the second at bed time.

### For Children

Seeds of 4-5 capsules of cardamom are roasted for 2 minutes and boiled in 150 ml of water with a piece of betel leaf. After filtering the residues, this water is given to children who suffer from stomach ache and nausea due to indigestion or worm trouble. This 'medicinal water' if given at frequent intervals, is believed to give immediate relief.

### For Headache

Cardamom in the form of paste like sandal paste is being used as a balm for headache. This paste is applied on the forehead for quick relief from headache.

### For Rheumatism

It is believed that chronic rheumatism could be cured by placing a pillow filled with cardamom husk below the affected parts of the body continuously for about 8 months.

*Collected by*

S. Ramasubramaniam,  
Market Intelligence Officer,  
Cardamom Board.



# The king of spices deserves the king of fertilizers



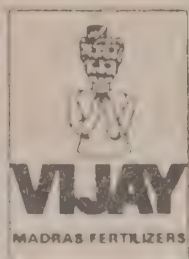
Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



# AUCTION ARRIVALS OF CARDAMOM

Centre	July 1979			July 1978			August-July 1979			August-July 1978		
	Qty. Sold (kgs)	Max. Price (Rs./kg.)	Av. price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)
<b>KERALA</b>												
Vandanmettu	—	—	—	—	—	—	1593040	260.00	183.07	1839232	252.10	146.21
Santhampara	—	—	—	—	—	—	462648	230.20	170.40	198290	210.10	126.82
Udumbanchola	—	—	—	—	—	—	106700	220.00	172.87	114811	210.00	137.23
Kallar	—	—	—	—	—	—	159287	226.50	164.91	116607	168.90	120.66
Cochin	—	—	—	—	—	—	26690	235.10	171.92	31506	185.90	128.35
Parathode	—	—	—	—	—	—	68160	217.50	177.32	—	—	—
Total (Kerala)	—	—	—	—	—	—	2416575	260.00	178.71	2300446	252.10	142.55
<b>TAMILNADU</b>												
Pattiveeranpatty	6239	190.50	142.24	4466	170.00	138.34	183978	230.00	140.96	156046	200.00	116.61
Bodinayakanur	7887	155.00	119.95	—	—	—	41905	195.50	119.93	—	—	—
Total (Tamilnadu)	14126	190.50	129.79	4466	170.00	138.34	225883	230.00	137.06	156046	200.00	116.61
<b>KARNATAKA</b>												
Mercara	789	173.00	135.00	—	—	—	24486	186.00	143.39	75493	150.00	97.38
Mangalore	—	—	—	27	138.00	135.41	80848	175.50	140.09	45128	155.50	118.20
Saklespur	7962	183.30	144.14	—	—	—	565508	261.20	133.15	416144	206.00	104.86
Sirsi	91	137.26	123.28	—	—	—	10493	161.55	126.28	4172	129.75	105.51
Mudigere	—	—	—	—	—	—	29463	201.10	128.09	—	—	—
Total (Karnataka)	8842	183.30	143.11	27	138.00	135.41	710798	261.20	133.98	540937	206.00	104.93
Grand (Total)	22968	190.50	134.92	4493	170.00	138.32	3353256	261.20	166.42	2997429	252.10	134.41

Source : Reports from licensed Cardamom Auctioneers



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

**COIR PRODUCTS -** Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

SECRETARY, COIR BOARD, COCHIN-682 016 (KERALA)

OR

VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:

1. NEW DELHI:	16A, Asaf Ali Road	Tel: No. 271388
2. BOMBAY :	5, Stadium House, Churchgate	.. 295212
3. CALCUTTA :	22 Loudon Street.	.. 445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	.. 51216
5. MADRAS :	1/155, Mount Road	.. 85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	.. 35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	.. 25753
8. BHUBANESWAR :	No. 17, Janpath, Babujee Nagar.	.. 50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	.. 25505
10. PATNA :	Biscomaun Bhawan, West Lawn	
11. HYDERABAD:	5-8-328, Chapel Road, Hyderabad-500 001	.. 36276
12. JAMMU :	Gumat Bazar, Jammu Tawi	

or

ANY OF OUR ACCREDITED DEALERS



## Dissemination seminars on market survey for cardamom

Based on the two market surveys for cardamom and other spices in selected Middle East, North African countries and Japan conducted jointly by the Cardamom Board and Spices Export Promotion Council with the assistance of International Trade Centre, Geneva, three dissemination seminars were organised in the important marketing / exporting centres of Cochin, Bodinayakanur and Bombay during 7th, 9th and 13th August respectively. At these seminars the survey team explained the various export-oriented measures to be adopted in boosting exports to the markets surveyed and the participants were enlightened on the export potential of the various markets with

specific strategies for individual markets.

The queries and doubts of the exporters and planters were answered with necessary background data by the survey team which comprised of S/Shri Fazli A. Husain, Market Development Officer, International Trade Centre; N. Bharathan Pillai, Market Development Officer, Cardamom Board; N. Balaraman Nair, Secretary, Spices Export Promo-

tion Council and D. Devakaran, Development Officer, Spices Export Promotion Council.

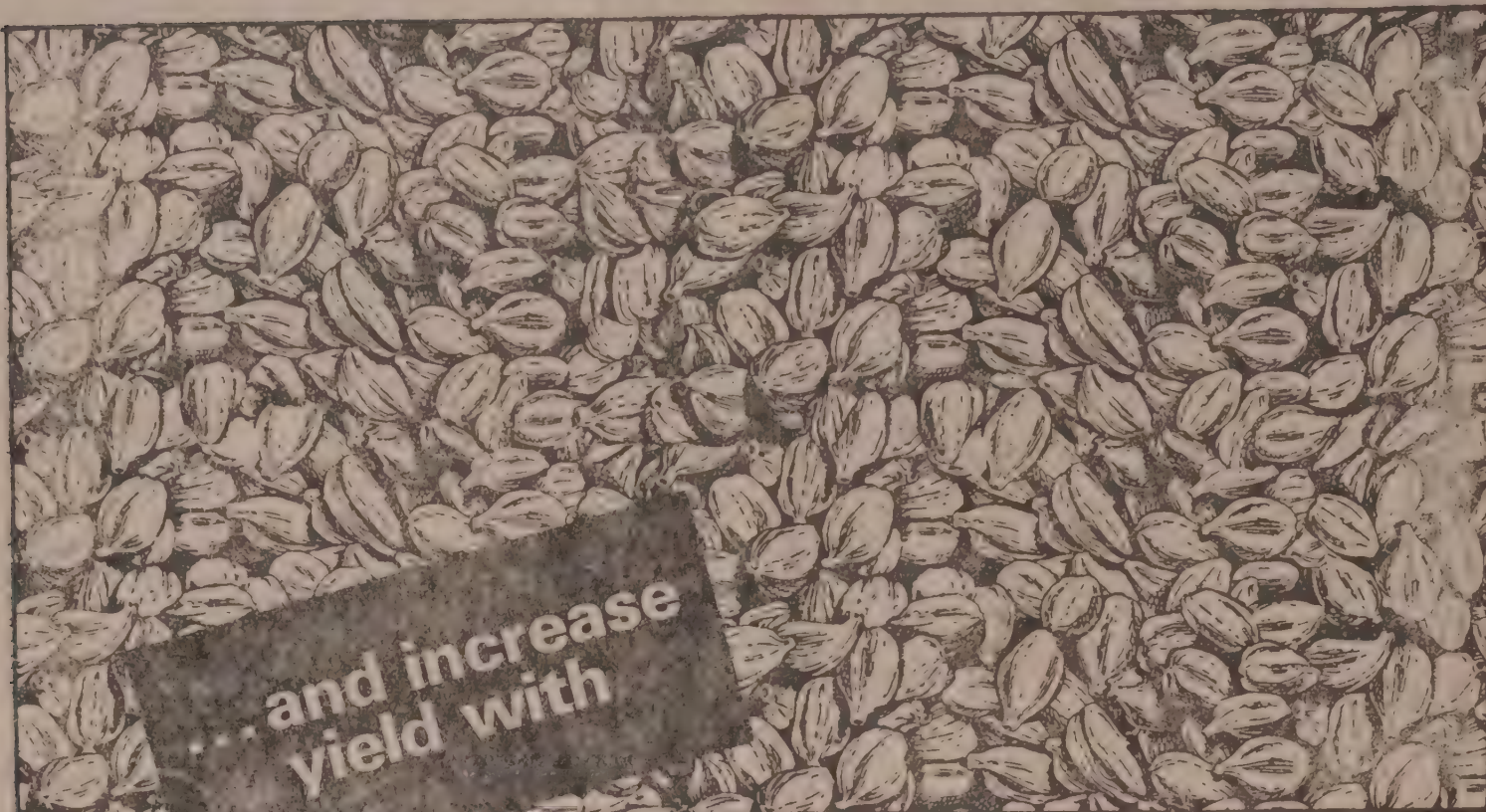
The dissemination seminars were well attended by a good number of planters, traders and exporters. Draft recommendations and findings of the survey and a short analysis of individual markets were distributed to the participants together with lists of importers.



Mr. Fazli Husain (third from right) addressing the exporters at the dissemination seminar held at Bombay on 13th August 1979.



**Ensure adequate  
nutrient supply to your  
cardamom crop**



**...and increase  
yield with**

**ARIES**

# **AGROMIN**

**India's First Chelated Plant Nutrients**



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.

For details write to:

The Agricultural Adviser

**ARIES AGRO-VET INDUSTRIES PVT. LTD.**

P.O. Box 9417, Bombay 400 093



**Aries AGROMIN chelated plant nutrients increase crop yield economically**





Shri M. Venkataratnam, Chairman, Coffee Board, seen at the right, at the Board's pavilion in the Pulney Hills conference. To his left is Shri K. V. George, Director, Cardamom Board.

## Planters' conference at Pulney Hills

A Conference of the planters of Pulney Hills was organised on the 19th August 1979, at Mangalamcombu, Lower Pulneys. Shri K. V. George, Director, Cardamom Board represented the Board at the Conference and spoke on the future prospects of the cardamom industry in the Lower Pulney Hills and suggested solutions to the problems faced by the cardamom growers.

About 3500 planters representing various plantation crops participated in the Conference. The Board also participated in the exhibition organised in connection with the Conference which attracted a large number of visitors.

## South Asian Dipterocarps

The Kerala Forest Research Institute has completed a study

on 'Dipterocarps of South Asia, and sent the final report to Food and Agriculture Organisation, the sponsor. The report covers distribution, botany, ecology, silviculture, wood, nonwood products, utilisation, pests and diseases of Dipterocarpaceae, an important family with 99 species in the South Asian region. It is noted that *Dipterocarpus bourdillonii* (confined to Kallar Valley and Idamalayar) and *Vateria macrocarpa* (found in Muthikulam and Attappadi) are endemic and it is important that effective steps are taken to save these species from the threat of extinction.

## Board participates in horticultural show

The Board participated in an exhibition at Bangalore from 10-15th August 1979 in connec-

tion with the Horticultural show organised by the Department of Horticulture, Government of Karnataka.

Dr. A. S. Melkote, Administrator, Bangalore City Corporation inaugurated the Show. H. E. Govind Narain, Governor of Karnataka; H. E. Peter Y. Strautmainis, Vice-President of U. S. S. R.; Mr. Astyomin Jordan, Minister of Communications, Norway; Shri D. B. Chandra Gowda, Minister for Minor Irrigation, Karnataka; Shri K. Prabhakaran, Minister for Rural Development etc. were some of the personages who visited the Board's pavilion.

The Board's display was so designed as to depict the contribution of Karnataka to the cardamom plantation industry in India. About 50000 visitors visited the Board's pavilion.

## Value of forest

In a year, one hectare of forest fixes 5 to 10 tons of carbon and releases 12.5 to 25 tons of oxygen; pumps 2000 to 5000 tons of water releasing around 2000 tons in the atmosphere; and fixes 30 to 80 tons of dust. Trees in shelterbelts can reduce wind speeds by 50-80 with effects that can spread upto a kilometre. A 50 m strip of trees can reduce noise by 20-30 decibels.

## EXPORT DUTY ENHANCED

The Government of India have enhanced the rate of export duty for small cardamom from Rs. 10/-per kilogramme to Rs. 15/-per kilogramme with immediate effect.



# TWO TIME-TESTED **M&B** AGROCHEMICALS BRAND

## 'PLANOFIX'\*

Flower and fruit drop inhibitor



## 'SERADIX'\*B

Rooting Hormone Powder  
for  
Confidence with Cuttings

*Detailed information is readily available from  
our Branch/Sales Offices*

\*trade mark

**M&B** May & Baker

MAY & BAKER (INDIA) PRIVATE LTD  
Bombay · Calcutta · Gauhati · Indore · Lucknow · Madras  
New Delhi · Patna



## Plants are good indicators of air pollution

Current research in the country may make it possible to use common plants as primary monitors of air pollution in industrial areas and their environs. Thus, it would be possible to minimise the use of expensive electronic hardware in use now for the purpose.

It has been found that several plants react in characteristic and predictable ways when subjected to industrial and domestic pollutants in the environment even when exposed to low concentrations. The injury symptoms of such flora, while reacting to specific pollutants is characteristic.

Leaves, due to their location, functions and sizeable area of

exposure, naturally face the brunt of pollutants in the air and studies have shown that the foliage of trees and plants exhibit the most obvious effects of pollution.

Studies carried out by the National Botanic Research Institute, Lucknow has listed nearly 40 species of common plants found in Lucknow and other industrialised towns of Uttar Pradesh. These include weeds, avenue-trees and cultivated crops.

Various injury symptoms like the blanching of green parts (chlorosis), death of circumscribed tissue (necrosis), browning and burning of tissue are visible in the morphology of some plants exposed to pollutants. Certain epidermal vagaries in their leaves has also been observed.

### ERRATA

In the news report on the office-bearers of the Kerala Management Association in our August issue the name of Shri N. G. Gopinatha Menon was wrongly given as the second Vice-President of the Association. This may be read as Shri N. P. Gopalakrishnan, Cost Accountant. Similarly Shri V. Geevarghese, Manager, State Bank of Travancore is the Secretary of the Association. The error is regretted. — Editor

With best compliments

## K. J. PLANTATIONS

QUILON - 691 004

Phone: Office: 2380, 2080      Resi: 2463, 3929

Telex: 0886 - 208      Telegram: 'SHANVILAS'

Coffee and Cardamom Estates at NELLIAMPATHY  
PALGHAT Dist.

Phone: Padagiri: 23



With the best compliments from:-

## **M/S. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No. 41

With the best compliments from:-

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No. 11



# CULTIVATION OPERATIONS

OCTOBER

	South West Monsoon areas (Kerala - Tamilnadu)	North East Monsoon areas (Tamilnadu)	South West Monsoon areas (Karnataka)
Primary nursery	Selection of disease-free and high yielding cardamom plants for collection of seeds.	Watering as required and routine upkeep. Cleaning site for the new primary nursery, digging, removal of roots and stones, collection of jungle soil.	When uniform germination is observed remove mulch and erect shade pandals. Mulching beds with paddy husk. Routine watering. Spraying mixture of Bordeaux and suitable insecticides as a prophylactic measure. If damping-off disease is noticed, trench beds with Bordeaux mixture 1%.
Secondary nursery	Routine plant protection measures. Watering as required. First round manuring if necessary with Ammonium Phosphate followed by mulching.	Routine watering and upkeep. In the new site, formation of beds, spreading jungle soil. Construction of shade pandals.	Routine watering, plant protection and weeding.
Starting of New Plantations	Second round weeding.	First round weeding continued. Clearing footpaths, drainage channels and routine upkeep continued.	Watch and ward and routine maintenance.
Maintenance of plantations	Second round harvest. Thrips control. Shade regulation continued. Fork digging continued. Forming basins around one year old plants to prevent soil wash. Manuring if delayed due to heavy rains.	Second round harvest. Thrips control. Clearing drainage channels and footpaths. Second round weeding.	Watch and ward. Crop harvest, curing, storage etc. Manuring and spraying continued and completed.





## **CYTHION**

**For complete livestock and poultry protection against insects and related pests.**

Pest infested animals can mean only one thing —

**No profitability.**

But now **Cythion** can give your livestock and poultry a fighting chance to live healthy, pest-free lives.

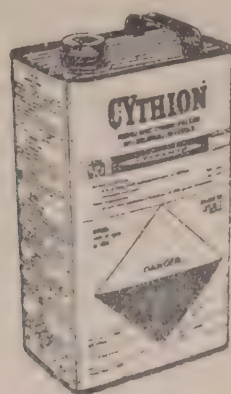
A low hazard insecticide, safe to handle and economical to use.

Used on and around animals,

**Cythion**

harm being done to them.

**Cythion. From Cyanamid.**



## **CYTHION**

**Offers effective control against 100 different pests attacking 90 different crops.**

Insect pests can cause havoc on your grain crops.

And your profitability.

Now give your crops effective pest control treatment.

With **Cythion**.

A low hazard, powerful insecticide **Cythion** kills on contact. Prevents untold damage being done to your crops.

Safe, efficient, economical **Cythion** can be applied 1-3 days before harvesting, leaving no harmful residue in the fully matured crops.

**Cythion. From Cyanamid.**

## **CYTHION** Also

**controls over 75 different pests attacking 50 different vegetable and fruit crops.**

When your vegetable and fruit crops are endangered by pests and insects there is only one solution.

**Cythion.**

A low hazard, powerful insecticide **Cythion** kills on contact. Prevents untold damage.

**Cythion** can be applied 1-3 days before harvesting, without leaving any harmful residue.

**Cythion. From Cyanamid.**

**CYTHION**  
MALATHION

**CYANAMID**

the name every farmer trusts

Cyanamid India Limited,  
Agricultural Division,  
P. O. Box No. 9109, Bombay 400 025.

\* Registered trademark of American Cyanamid Company, Wayne, New Jersey, U.S.A.



# To millions around the globe



means garden fresh, hand picked and the best

## INDIAN CARDAMOM

We grow, deal in and export the best of  
Indian Cardamoms

### Enterprises

**Planters, dealers & exporters**

*Head Office:*

XXXVI/285-3 T. D ROAD, COCHIN - 682 011

Telephone: 33589 & 38527    Cable: BLISS    Telex: 885/472 BLIS IN

**Plantations:**

1. P. V. Plantations  
Mali - P.O.,  
Vandanmettu  
Phone: 41
2. P. V. Plantations  
Santhanpara - P.O.,  
Munnar.

**Purchase Office:**

P. B. No. 34, Door No. 109  
Ward No. 2 East Palace  
Bodinayakannur  
Madurai Dist.  
  
Phone: 441 & 442  
Telex: 0447/210 BLIN IN  
Cable: BLISS

**Export Office:**

Vijaya House,  
Station Road  
Vikroly  
Bombay - 400 083  
  
Phone: 582420  
Telex: 011/6485 SUJA IN



Cardamoms are available in attractive retail packets of

50 gms, 100 gms, 250 gms, 500 gms, and 1000 gms. in

different grades



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.

- Area under Cardamom

225 Hects.

Pasuparai Estate  
Pasuparai P. O.  
Elappara

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.



# GANDHI SONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONOOOR,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHI SONS

'GANDHI BUILDING'  
232, Samuel Street  
BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



Phone: 23

Established in 1959

Gram: ELAKAY

# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.

Kerala, India.



The best and foremost cardamom auctioning  
establishment in India

**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Selection of all quantities of cardamom possible  
and any quantities of cardamom available.

We handle more than 60% of the cardamom produced in  
Kerala securing the highest prices.



# Cardamom



OCTOBER 1979



*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**

**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

**WINNERS**

**'CERTIFICATE OF MERIT'**

**FOR THEIR MERITORIOUS EXPORT PERFORMANCE**

**IN CARDAMOMS FOR THE YEAR 1971-72**

**FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



---

## CARDAMOM BOARD

Chairman: S. G. SUNDARAM I. A. S.

Director: K. V. GEORGE

Secretary: K. G. NAYAR

---

### "CARDAMOM"

Readers are invited to share their experiences in the cardamom plantation industry through 'Cardamom'. Articles and reports on achievements, failures and success stories etc. related to all aspects of the plantation industry along with photographs if any, may be sent to us for consideration. Selected materials will be suitably paid for.

---

*Chief Editor*

K. R. KURUP

*Editor*

C. P. SALEEM

---

## CARDAMOM BOARD

P. B. No. 1909

HERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

TELEPHONE : 33837, 33209

TELEX: 0885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

---

Vol. xi

OCTOBER 1979

No. viii

---

### *in this issue*

Editor's page	2
International situation in cardamom and its significance to India <i>S. G. Sundaram I. A. S.</i>	3
Market for cardamom—Denmark	9
Farming a mountainside	15
Monthly statistical abstract—August	21
Auction arrivals of cardamom	23
Letters to the Editor	25
News and notes	27
News from the field	33
Cultivation operations	34



## PROMOTION OF END-USES

The Cardamom Board has been planning and executing various developmental programmes aimed at increasing production and exports of cardamom. These programmes covered financial as well as technical assistance to planters, measures for streamlining welfare programmes for labourers and promoting the trade & exports. These measures have resulted in a steady increase in production and export of cardamom from the country. Consequently the foreign exchange earnings from the export of cardamom has been showing a steady increase during the past few years.

It is imperative that we should find new markets and end-uses for cardamom for assuring a remunerative return to the producer. Over-dependence on a particular market alone is not a healthy marketing practice in view of ever changing international political/economic situations. Hence, exploring new markets and developing new end-uses for cardamom have become the need of the day in the present context, in addition to the efforts to maintain and enhance the existing markets. The market surveys recently conducted by the Board have clearly indicated that there is vast scope for exploiting the peripheral Arab markets in the Middle East other than Saudi Arabia, Kuwait etc. It has also been pointed out that there is very good scope for popularising cardamom flavoured products in the Scandinavian countries.

Efforts are being made to induce food industries in affluent countries for adding cardamom as a flavouring agent in consumer food products like Icecream, Coffee cake, baked foods etc. and to introduce in perfumes, toiletries, body care preparations etc. Side by side with this, intensive research for finding out new end-uses is being taken up on a priority basis for absorbing the additional crop arising out of the increased production. In this respect the Board has plans to encourage research organisations to undertake studies on this line by providing them with financial assistance. Proposals for sending cardamom samples to established food processing industries in European countries for encouraging them to incorporate cardamom flavour in their processed and baked food items is also in the anvil.

The Board is also launching another fact finding cum investigative mission on cardamom marketing in some of the affluent countries like U. S. A , Canada, Japan etc. shortly.



# “INTERNATIONAL SITUATION IN CARDAMOM AND ITS SIGNIFICANCE TO INDIA”

S. G. SUNDARAM, I.A.S.

*Following is the full text of the speech delivered by our Chairman at the 86th UPASI Annual Conference held at Coonoor during 3rd, 4th, 5th Sept. 1979*

At the outset, I would like to inform my friends that India has been in the past, is at present and will continue in future also as the leader in the production and export of cardamom in the world. As all of you are aware, the Indian Cardamom Industry is at its boom period now; sorry, I should not term it as a boom period because every boom has got a recession. I do hope and wish that the present boom in the cardamom industry will be a continuous process and the real boom is yet to reach. During 1977-78 India's production was 3900 M.T. and export 2800 M.T. valued at Rs. 480/- million and during 1978-79 the production touched 4000 M.T. and export reached 2900 M.T. valued at around Rs. 600/- million. Looking at the present situation in India, we anticipate that the production during the current year i.e. 1979-80 will reach another peak of 4500 M.T. of which the export will be of the order of 3500 M.T. valued at Rs. 700/-million.

In this context, I would like to recall my brief speech in the last UPASI meeting wherein I had stressed the importance of realisation of better prices for the

development of industries especially plantation crops. No doubt the price incentive is the best incentive for development; it has been proved true also.

We may now consider the international supply position for cardamom. The total global production of the commodity in the recent years has been varying between 6000 M.T. and 6800 M.T. of which India accounts for around 4000 M.T.; Guatemala's share in between 1500 M.T. and 2000 M.T., Tanzanian between 300 M.T. and 500 M.T. and Sri Lanka's between 200 M.T. and 300 M.T. The total export by these countries was ranging between 5000 M.T. and 5500 M.T.; keeping a certain share for domestic consumption especially by India and Sri Lanka. Let us take a look at the total requirement of cardamom in the world. As per the different studies made by Cardamom Board, the present potential existing in the traditional markets itself is around 5200 M.T. Taking into account, the potentiality existing in the other non-traditional areas like peripheral Arab markets in the Middle East, we have assessed the current global requirement at about 6000 M.T. excluding

domestic consumption by the producing countries especially India, which will be around 1500 M.T. So we can easily say in marketing terms that the commodity cardamom still enjoys a sellers' market.

Before estimating the targetted growth rate in the global requirement and the supply position one has to precisely assess the existing demand segmenting the markets. The prime markets, viz. Middle East countries do at present require cardamom ranging between 3000 M.T. to 3500 M.T. (Of course, this is based on the limit of their purchase in recent years and have not taken into account the possible expansion provided more quantities are pushed into them). The secondary markets, viz. the Scandinavian countries account for about 600 M.T. annually of which Sweden alone consumes about 300 M.T. and the rest by Norway, Finland and Denmark. The other West European countries, viz. West Germany, U.K., etc. together consume about 200 M.T. to 250 M.T. annually. Another 250 M.T. to 300 M.T. are consumed by the East European countries viz., the U.S.S.R., G.D.R., etc. Among the Far East



# V. N. SURULIVEL NADAR & BROTHERS

Cardamom Exporters, Planters, Auctioneers & Commission Agents  
P. O. BOX No. 9 :: BODINAYAKANUR-626 513 :: S. INDIA

Established. 1947 Phone: 232, 255 Cable: DIAMOND Telex: 447 202 VNSB

Serving all the Principal Markets in the World and Enjoying the Highest  
Reputation overseas. Buyers for over three decades

## *WINNERS OF*

Awards and Certificates of Merit for Outstanding Export Performance in Cardamom  
from Government of India for the years 1969-70, 1970-71, 1973-74, 1976-77  
From Spices Export Promotion Council for 1973-74, 1974-75, 1975-76, 1976-77

## *PLANTATION UNITS*

1. THE ELLEMBILLERY ESTATE, MEPPADI, KERALA
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, KERALA
3. THE VELLARMALA ESTATE, MEPPADI, KERALA

## *AUCTION UNIT*

UNITED CARDAMOM AUCTIONEERS, SANTHANPARA, KERALA

## *REGIONAL OFFICE*

224/3. 'RAMKRISHNA NIKETAN' SIR BALACHANDRA ROAD  
MATUNGA, BOMBAY-19 DD

Phone: 473146 :: Cable: ARASAN

## *BRANCH*

SHORTLY OPENING AT "SAGAR" No. 9, II FLOOR  
NARSHI NATHA ST., BOMBAY-400 009

OUR SPECIAL EXPORT BRANDS OF REPUTE IN ALL MIDDLE EAST COUNTRIES

'MUMTAZ' EXTRA BOLD CARDAMOM  
'HANDPICKED' GREEN CARDAMOM  
'TAJ' BRAND SUPERIOR BOLD CARDAMOM  
'DIAMOND' BRAND SPECIAL GREEN CARDAMOM

Largest Exporters of all Standard Agmark Grades of Green Cardamom  
Cardamom Seeds, Husks to U.K., U. S.A., CONTINENT, U.S.S.R. EAST  
EUROPEAN COUNTRIES, JAPAN with a reputation for quality and correct weight

VNS — A TRUSTED NAME IN CARDAMOM AT HOME & ABROAD  
SERVING THE NATION & THE TRADE FOR WELL OVER THREE DECADES



countries, Japan tops first, its consumption being around 90 M.T. Pakistan is also a good outlet for cardamom and has been importing large quantities from Tanzania. U.S.A. and Canada, the less explored markets and other countries totally import only 200 M.T. The requirement of all these countries are now met by the supplying countries, viz., India, Guatemala, Tanzania and Sri Lanka in that order. While India, has got strong hold in the Middle East, Guatemala has emerged as the largest supplier to the West Europe. The Japanese and the Russian markets are to a great extent monopolised by India.

As I have already pointed out, the present situation of demand and supply gives a rosy picture, but it is high time that we consider the other side of the coin. Are we going to reap the same benefits in the years to come also? I want to focus attention on a new marketing strategy for keeping the industry in the same pace for attaining new goals year after year. May I tell you that no major policy matters are involved in such a strategy but only implementation of certain ideas.

The producing countries have already realised that the commodity is highly paying and a major portion of the world supply is consumed by the petrodollar countries who could afford to buy at higher rates. But are all these going to remain as such? First point is that are we to perilously depend upon one segment of the market? Second point, won't the other producing countries also take initiative for

bringing up their production levels? In the wake of a surplus production by all the supplying countries, will there not be a glut in the international markets followed by fall in prices? These are vital points, which are to be discussed threadbare in forums like this.

As my friends here are aware, we have plans to increase our production through both intensive cultivation and extensive cultivation. Measures adopted towards this by the Board have already been published in different occasions and are well known to interests concerned with this industry. By 1982-83, our production may reach 5250 M. T. and if all things go well, by the end of the next decade, we may reach even 7000 M.T. Likewise we should bear in mind that Guatemala also has got plans to double its production in the immediate future. Although production in Tanzania fell down drastically during the recent past, of late it is also gaining momentum to reach the original level of 700 M.T. to 1000 M.T. or even more. We have information that with technical expertise available from aid countries, Tanzania is going ahead with plans for improving its processing methods with a view to producing green colour bold cardamom of high commercial value. New entrants like Papua New Guinea are also concentrating much on increasing their production. All these indicate availability of additional surplus of the commodity in the immediate future, for which markets have yet to be found out and explored.

It is in this context that I have made a detailed analysis of the existing potentiality and the possible expansion. Theoretically speaking, any marketer who anticipates additional production surplus has got to explore two opportunities: 1. trying to expand the existing markets and 2. exploring new outlets. Expansion of existing markets has its own limitations. However, towards this direction what we have to do is to maintain our share in the existing market. Hence, the next alternative is to go in for new potential markets.

There are certain pockets in the world where although cardamom is known, the real consumption is negligible as compared to Middle East or Scandinavia. The food habits of people are rapidly changing and the spices have always occupied prominent position in the food items. Markets like, U.S.A., Canada and to a great extent Japan remain still unexplored.

The expansion is more easier in the peripheral markets. I have pleasure in telling you that we have already started exploring the peripheral Arab markets. Although it was not a surprise to us, we have now understood that a sizeable quantity of cardamom could be pushed to countries like Libya, Jordan, Egypt, etc. A recent study made in these countries have disclosed that the potential is vast, but immediate action is warranted. As you know, the consumption of cardamom in these countries is mainly in the Arab coffee viz., 'Gahwa' which is now gaining popularity in the newly flourishing countries like Libya. I regret, in the past



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337



*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms  
for the year 1973-74 from the Ministry of Commerce,  
Govt. of India and also from the Spices Export Promotion  
Council, Cochin and shield for 1975-76 from the Spices  
Export Promotion Council, Cochin.



Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"

IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



ve had not been trying to create awareness about the availability of the commodity in such peripheral markets. It was only because of our limited supply position that we could not attempt to do that, but the position has now changed thoroughly and one has to make sure that the additional quantities fit in areas where we have not entered so far.

We have already taken initiative for undertaking certain market development projects in the affluent countries like U.S.A., Canada, Japan, etc. The proposed strategy should not be a mere fact finding survey mission but should also undertake specific investigations into new end uses both in food and non food industries. The idea of developing new products using cardamom as an element for flavour, aroma, etc. in ice cream, chewing gum, bakery products, liqueurs, perfumes, mouth freshners, tooth paste, etc. has been in the air for the past quite sometime; but no action seems to have been taken on this. My idea is to see whether the food and non-food manufacturers in the affluent markets could be persuaded to use cardamom as an element in their products. The development project envisaged by us, which is at its implementing stage now has two phases. The first phase is to give an idea about new products, through correspondence, sending pamphlets, and brochures, where cardamom could be an acceptable element. The second phase envisages actual field investigation by personally contacting the concerned people in those countries and effectively selling the idea. This promotional strategy, although prima facie

seems to be rather difficult and expenditure involving, one cannot forget about the impact it can make in future.

Unilateral promotion by India alone may not have the full advantage as the resultant expanded market may have doors open to other supplying countries also. What is needed is generic promotion through joint action by all the supplying countries. It is in this context that we have advocated the formation of an international cardamom community with a view to undertaking joint promotional schemes. This has been in the air for sometime time and preliminary talks have already been initiated at higher levels. I should warn that immediate action is warranted instead of prolonging dialogue with the other supplying countries. Early formation of the community with of course assistance from International bodies like International Trade Centre, Geneva or Food and Agricultural Organisation, Rome for guiding and advising the supplying countries for the establishment of such an international agency is essential. Once such a community is established and necessary funds are made available to it by the producing countries in proportion to their export earnings, there will be no problem for undertaking generic promotion and the created/expanded markets can be subsequently fed by the member countries. I take this opportunity to request this forum, the Government of India and all others connected with this industry to try for speeding up the establishment of the International Cardamom Community.

## PLANTATION SCHEMES

The government has approved two new schemes as part of its plan to increase areas under different plantations, particularly in non-traditional areas through subsidy. The schemes relate to rubber and coffee. In order to encourage cultivation in new areas, it has been decided to grant cash subsidy for both the plantations in view of the long legislation periods which in the case of coffee is four years and for rubber seven years.

With a view to enthusing people to take up rubber plantations afresh, it has been decided to offer a cash subsidy of Rs. 7,500/- per hectare for holdings up to two hectares and for holdings between two hectares and 20.23 hectares, it will be Rs. 5,000/-. It has also been decided to pay to the growers an interest subsidy up to three per cent. Field Officers of the Rubber Board will be appropriately strengthened to take up this task.

The plan to increase production of natural rubber assumes special significance in view of the growing gap between demand and supply. The total expenditure under the scheme now approved for new plantations during 1979-80 and 1982-83 would be a little over Rs.33 crores.

Under the scheme for coffee, 25,600 hectares will be brought under new cultivation from 1979-80 to 1982-83. In this, case a subsidy of Rs.2,500/- per hectare will be paid. The total cost in 1982-83 will be slightly over Rs.4 crores.



# **Associated Cardamom Auctioners (Private) Limited**

(Regd. Office: XXXV/543, Warriam Road,  
COCHIN-16)

This year we quietly enter the field of Cardamom  
auction for better services to the planters,  
Dealers and Exporters.

Selection of any type of cardamom is available  
at our auction.

**AUCTIONS ARE CONDUCTED AT  
KALLAR, VATTIAR P.O.  
ON EVERY WEDNESDAY**



# DENMARK

Following is an excerpt on Denmark from the report on the market survey jointly carried out by Cardamom Board and International Trade Centre, Geneva in the Middle East and West European countries. The survey team consisted of shri N. Bharathan Pillai, Market Development Officer, Cardamom Board and Mr Brian Mc. Loughlin, Marketing Consultant, International Trade Centre, Geneva. Excerpts on Kuwait, Bahrain, Iran, Qatar, Saudi Arabia, United Arab Emirates, Sweden, Finland, Federal Republic of Germany and Norway appeared in the preceding issues of "Cardamom"

—Editor

Denmark, a small market for cardamom has importance only to the extent that the main buying office for the Scandinavian co-operatives is located in Copenhagen. There is, however, some demand for consumption both of whole and ground cardamom.

The import history for whole cardamom for the five years to 1976, the latest for which data is available, is shown in Table-1. Data for ground cardamom is set out in Table-2, this data being available only from 1973-1976; previously ground cardamom and whole cardamom statistics were collected together.

In share and absolute volume terms, Guatemala is the main supply source for whole cardamom, though Tanzania has lately made significant inroads on the market.

The share picture for ground cardamom shows that supplies of ground cardamom from Guatemala are falling in volume and West Germany is the single most important supply source.

Table-1  
SHARE OF IMPORTS - VOLUME BASIS - WHOLE CARDAMOM

	1972 %*	1973 %	1974 %	1975 %	1976 %
Guatemala	62.9	79.2	75.6	86.2	71.7
India	25.6	8.0	0.8	1.7	3.6
Tanzania	5.5	9.2	8.4	11.5	21.9
Sri Lanka	—	—	—	—	—
G.F.R.	4.1	3.3	4.2	—	—
Others	1.9	0.3	10.9	0.6	—
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*includes ground cardamom

Source: Compiled from National Foreign Trade Statistics—Denmark

Table - 2  
SHARE OF IMPORTS - VOLUME BASIS - GROUND CARDAMOM

	1972 %	1973 %	1974 %	1975 %	1976 %
G.F.R.	NA	27.9	34.3	68.0	41.4
Guatemala	NA	60.7	41.0	30.8	41.4
Tanzania	NA	—	9.5	—	4.8
U.K.	NA	—	1.9	—	—
Sweden	NA	7.9	12.4	—	—
Others	NA	4.5	0.9	1.2	12.4
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Compiled from National Foreign Trade Statistics—Denmark



**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available to  
planters**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**  
(A Govt of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekandeswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



Table-3

# IMPORT OF CARDAMOM INTO DENMARK - BY SOURCE 1971 - 1976

## HOLE CARDAMOM

Year	Source	Quantity (M T)	Value	
			(Rs. '000s)	(\$ '000.)
1971	Guatemala	16.2	713	98.8
	India	5.8	190	26.4
	Tanzania	3.2	108	15.0
	Sri Lanka	—	—	—
	G.F.R.	6.0	231	32.0
	Others	1.0	42	5.8
	Total	32.2	1,284	178.0
1972	Guatemala	22.9	740	92.4
	India	9.3	256	32.0
	Tanzania	2.0	51	6.4
	Sri Lanka	—	—	—
	G.F.R.	1.5	43	5.4
	Others	0.7	25	3.1
	Total	36.4	1,115	139.3
1973	Guatemala	26.7	999	122.9
	India	2.7	27	3.3
	Tanzania	3.1	92	11.3
	Sri Lanka	—	—	—
	G.F.R.	1.1	37	4.5
	Others	0.1	Neg	Neg.
	Total	38.7	1,155	142.0
1974	Guatemala	18.0	830	102.7
	India	0.2	19	2.3
	Tanzania	2.0	74	9.2
	Sri Lanka	—	—	—
	G.F.R.	1.0	37	4.6
	Others	2.6	128	15.9
	Total	23.3	1,088	134.7
1975	Guatemala	15.0	783	87.6
	India	0.3	21	2.4
	Tanzania	2.0	71	7.9
	Sri Lanka	—	—	—
	G.F.R.	—	—	—
	Others	0.1	7	0.8
	Total	17.4	882	98.7
1976	Guatemala	18.0	1,120	126.1
	India	0.9	31	3.5
	Tanzania	5.5	308	34.7
	Sri Lanka	0.7	53	6.0
	G.F.R.	—	—	—
	Others	Neg.	8	0.9
	Total	25.1	1,520	171.2

Source: Nation Foreign Trade Statistics—Denmark

Much of the ground cardamom exported from West Germany is Tanzanian in origin, ground in Hamburg by German Spice Grinders. Cardamom is primarily an industrial raw material in Denmark, used in the bakery industry for coffee cake and to a very limited extent in meat processing in the manufacture of sausages. Domestic usage, which accounts for less than 30 per cent of volume, is exclusively for baking.

The consumer in Denmark is divided into two groups; those purchasing ready-made coffee cake from supermarkets and local bakeries and housewives baking at home. The former constitute the largest proportion of cardamom consumers, but absolute levels of consumption are low. The eating of coffee cake is not a common consumer habit in Denmark, as it is in Finland and Sweden.

Distribution of ground cardamom to industry is through spice millers, who import and grind to specialised wholesalers supplying the bakery industry. Consumer distribution, which is limited, is through grouped wholesalers, the co-operative central buying organisation or retailers' central buying co-operatives who buy packed from the spice grinders and distribute through their affiliated retail stores. Virtually no whole cardamom is sold in Denmark in either the consumer or industrial markets.

Imports are carried out by the small number of independent millers, or for the co-operative chain, by N.A.F. acting as an indenting agent on behalf of the Danish Consumer Co-operative Societies.



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

Gram: " PEEACEE "

Phone. 336

*AUCTION CENTRE:*

**VANDANMETTU (Idukki Dist.)**

Phone: 45

**Head Office:**

**329 Main Road, Cumbum-626 516, Madurai Dist.**

**Branches:**

VANDANMETTU (Idukki Dist.)

PAMPUPARA "

CHENKARA "

NARIYAMPARA "

PARATHODE

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



N.A.F. provide an indenting function for the Swedish, Finnish and Norwegian co-operatives and presents, therefore, an important European buying point. Total tonnage purchased by N.A.F. is 75 tonnes per annum on average, of which nearly 90 per cent is destined for Sweden, Norway and Finland.

Importers purchase from any source where cardamom is available, the prime criteria for purchase being price and quality. Prime quality considerations are moisture-weight and oil content. The Danish buyer is little concerned with appearance, as all cardamom is sold ground. Hence, grades appropriate for Denmark are AGS, AGS 1 and AGS 2.

There are no restrictions and tariffs on the importation of whole cardamom or cardamom seeds to Denmark. Prepacked cardamom would have to con-

form to stringent labelling and food hygiene standards.

Denmark is a small market for cardamom and no significant growth in overall consumption can be envisaged. Prospects exist, however, for India to regain market share now that prices from competing sources such as Guatemala and West Germany have risen to levels comparable with those from India. In addition, the importers have now found Tanzania an unreliable source and are willing to consider any offers for lower grades.

Units of purchase are, however, small and there are doubts about the efficiency of shipping services and about consistency of quality for supplies from India. The Indian Letter of Credit rule is also a barrier to direct exports to Denmark. Supplies are available to Danish importers from Hamburg merchants on Cash

against Documents or even on a consignment basis. At present, there is no case that can be made for promotion of cardamom in Denmark.

There is a trend in the industrial market segment towards usage of cardamom oil and exporters who can supply this product at competitive rates may meet with some response from the major importers listed in the Annex.

Annex  
PRINCIPAL IMPORTERS OF  
DENMARK

Nordisk Andelsforbund,  
(Scandinavian Co-operative Society),  
DK-1609, Copenhagen V-3,  
Axeltorv.

M/s. K. Dirach A/S,  
Dansk Krydderi Import,  
Danish Spice-Import Ltd.,  
Byageren 3-9-400,  
Roskilde.

Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

## TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

### Factories at :

- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. KONUR   |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

### Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N.	P.	K.
40 (38)	80 (40)	80



For Particulars

## T. STANES & COMPANY LIMITED

### AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 33518

OR

**Our FACTORIES and Branches:**

- |    |                         |            |
|----|-------------------------|------------|
| 1. | Avaniapuram (Madurai    | — 625 012) |
| 2. | Ettumanoor (Kottayam    | — 686 631) |
| 3. | Calicut (Malabar        | — 673 004) |
| 4. | Kanimangalam(Trichur    | — 680 007) |
| 5. | Mangalore (South Kanara | — 575 006) |
| 6. | Palghat (Kerala         | — 678 001) |
| 7. | Shimoga (Karnataka      | — 577 201) |



# FARMING A MOUNTAINSIDE

*The article throws much light on cardamom cultivation in Guatemala.  
We hope this will be of interest to our readers.*

—Editor

Denis Koester tapped the top of the rectangular table in the dining room of his farmhouse. "This," he remarked with a smile, "is the only flat part of my entire property".

He was exaggerating, of course—but only slightly.

Mr Koester owns and operates a 4,000-acre plantation in the remote and rugged highlands of Northern Guatemala. He calls his farm Finca Volcan. An equally appropriate name would be Finca Vertical. The property hugs a steep mountainside, and within the 4,000-acre rectangular area encompassed by the farm, elevations range from 1,800 to 5,000 feet. The average gradient is about 30 degrees!

As if that alone were not enough to discourage cultivation, the land is extremely rocky, the soil is not particularly fertile, and the hillsides are pounded by an average of 160 inches of rainfall annually.

Under these conditions, you don't plant 'taters and you don't plant cotton. So what in the world do you grow? Well, in Denis Koester's case the answer is three labour-intensive, premium-priced, semitropical crops: coffee, cardamom and macadamia nuts. Of the 720 acres he currently

has under cultivation of Finca Volcan, 120 are in coffee, 200 in macadamia trees, and 400 in cardamom.

## A COSTLY SPICE

As anyone who has bought either item lately well knows, both coffee and macadamia nuts cost more than a pretty penny today. But they are moderately priced compared to cardamom. It is one of the world's costliest spices; currently it sells for as much as \$1,000 a hundred weight down on the farm. That's a hefty \$10 a pound.

By no means does all cardamom fetch that princely sum. The \$1,000 figure is only for the very finest pods. Much of the crop brings in the neighbourhood of \$400 to \$500 a hundredweight—still a tidy amount.

A major reason for the high price of premium quality pod is that cardamom is much in demand in such oil-rich Arab countries as Kuwait and Saudi Arabia, where seeds are munched like peanuts. For this purpose, the Arabs seek the best-formed whole seeds and price is not really a consideration. Another major use for cardamom in the Middle East—and in other parts of the world—is for flavoring coffee.

## A HERBACEOUS PERENNIAL

A member of the ginger family, cardamom is a herbaceous perennial. It has long fibrous stems that attain heights ranging from five to as much as 18 feet. The base of each stem puts out one or more flowering shoots or spikes with a cluster of bean-like green pods, each of which contain 15 to 20 small, dark seeds.

These seeds are what all the fuss is about. They have a pungent, aromatic smell and a refreshing, spicy taste that make them useful in a variety of seasoning applications. Cardamom is a basic ingredient of curry and is employed in many types of sauces, meat, fish and vegetable dishes and baked goods.

In addition to its culinary roles, cardamom has a number of medicinal uses—as a taste-making agent, carminative and aromatic stimulant. According to Denis Koester, cardamom is also a highly effective natural breath freshener.

Cardamom is a native of India and this country is still the largest producer and consumer of the spice. The plant is also grown in limited quantities in several other parts of the world. Guatemala is a relative newcomer to the ranks of producers. However



**VOLTAS**

# zolone

Insecticide-cum-Acaricide



**puts extra power  
in your hands  
to protect your  
cardamom.**



Harmless to bees,  
parasites and  
predators of crop pests

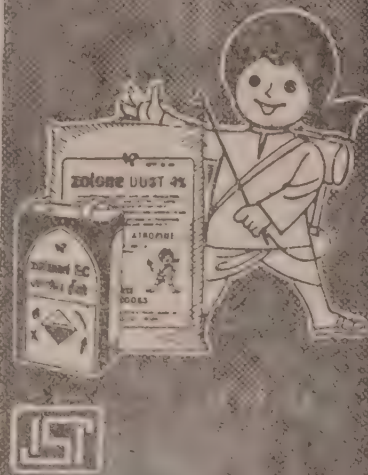


Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- Has a local penetration action, so is also effective against sucking pests.
- Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- Recommended as part of integrated pest control programmes.
- Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by  
**VOLRHO LIMITED**  
Secunderabad 500 003

Marketed by  
**VOLTAS LIMITED**  
Agro-Industrial Products Division  
Bombay • Calcutta • Madras  
New Delhi • Bangalore • Ahmedabad  
Secunderabad • Cochin • Bhopal.





a crop is of increasing importance in that country, which now has more than 10 000 acres under cultivation.

"At present, Guatemala is second only to India in cardamom production and we're fast overtaking that country", Denis Koester reports.

## BASIC REQUIREMENTS

Cardamom requires these basic growing conditions: mild year-round temperatures, abundant rainfall, shade, and soil that is rich in organic matter. (Coffee and macadamia prosper under similar conditions so it's logical to cultivate them in combination with cardamom.) Given these prerequisites and a minimum of care, which in common practice is limited largely to manual control of weeds, growers in the Guatemalan highlands have been able to achieve yields of around 50 pounds of cardamom pod per acre.

With pod selling at the price it does, many a grower is content to settle for this type of nominal yield.

Denis Koester has taken a different approach.

A native of Guatemala and a life-long farmer, Mr. Koester combines a wealth of practical experience and knowledge with an intense interest in promising new products and procedures. This interest led him to pioneer the cultivation of cardamom in Guatemala. Mr. Koester made his first planting in 1965, and did well with crop right from the

start. However, he was not fully satisfied with either the yields or the quality he got.

Because cardamom is a very specialized crop and cultivation had been limited mainly to India, very little information was available to growers on how the plant functioned and how they could get it to perform in optimum fashion. So Mr. Koester has done quite a bit of experimenting in terms of plant stock and cultivation techniques.

"We have learned a lot in the past decade," he reports. "And we are still learning."

Most growers in the Guatemalan highlands have not made extensive use of fertilizers or other agricultural chemicals on cardamom. From the outset, Denis Koester "applies fertilizer like mad"-including both major and minor nutrients. He also developed a comprehensive program for the application of agricultural chemicals to control weeds, diseases and insects.

The results have more than repaid these efforts. Currently, cardamom yields on Finca Volcan are averaging 1,000 pounds per acre, and in some plantings they have hit as much as 1,800 pounds!

## PROTECTING EVERY PLANT

Mr. Koester follows similar progressive cultivation practices on his plantings of coffee and macadamia. "We have a total of three quarters of a million plants on this farm," he says, "and we make a point of fertilizing and spraying every one."

In this spray program, Denis employs a series of agricultural chemicals produced by Rohm and Haas. This list includes Dithane M-45 fungicide, Goal herbicide, Mocap nematocide, and Triton spray adjuvant.

A broad spectrum control agent, Dithane M-45 is employed worldwide to combat a variety of important fungus diseases. One of these is Cercospora leaf spot, to which cardamom is highly susceptible.

Weed control is an essential part of cultivation in the Guatemalan highlands. In the past, farm workers have done this manually, with machetes. This job is arduous and time-consuming and often provides less-than-effective control.

Denis Koester has done away with manual weeding at Finca Volcan and relies entirely on carefully selected herbicides. During the past year, on a first-time, trial basis he employed a new herbicide called Goal which Rohm and Haas has introduced to the Latin American market. "It really did a remarkable job of weed control wherever we used it", Mr. Koester reports.

Nematodes are another major concern on Finca Volcan. To combat these soil-born parasitic worms, workers apply another product that Rohm and Haas markets in Latin America called Mocap. One of the big advantages of Mocap is that unlike standard liquid nematocides that must be injected into the soil, Mocap-a granular material-may be spread on the ground around the plants. With rainfall, the



# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM



PREMIER OFFERS MORE :

- 1 ECONOMICAL CAPITAL COST.
- 2 STRONG, RELIABLE EQUIPMENT.
- 3 **FREE** TOTAL IRRIGATION PLAN SURVEY TO COMMISSIONING

Specialised and efficient equipment engineered at the lowest capital cost for your plantation.

## SPRINKLERS

Spray water overhead gently and evenly, like rain. Regulated supply prevents water wastage. Creates humid atmosphere necessary for cardamom cultivation.

## COUPLING VALVES

New and exclusive to Premier Systems. Sprinklers are moved and reconnected easily and quickly. Less labour. More irrigation.

## PIPELINES

Flexible and strong. Fastest coupling and uncoupling. Best water sealing. India's only ISI certified pipes.

## PUMPSETS

More reliable. More economical.

## PREMIER SERVICE

Highly trained expert team who survey and analyse before proposing the Premier Sprinkler System best suited to your plantation. Backed by prompt and comprehensive after-sales-service.

Available on Cardamom Board Hire-Purchase Scheme.

**PREMIER IRRIGATION**  
Not just a complete system.  
A complete service.



**PREMIER IRRIGATION**

EQUIPMENT  
PRIVATE LIMITED

Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
Branches :

Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 61670/63826

Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570

19 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604

Main Road, Gonikoppal  
Dist. Coorg, Karnataka. Phone : 7

Santhepet, Hassan 573201  
Karnataka. Phone : 8840



granules dissolve and the chemical leaches into the soil killing the nematodes. The process is simple, efficient and economical.

#### LARGE LABOR FORCE

Due to the types of crops grown, the precipitous nature of the terrain, and the intensity of the cultivation practices, Finca Volcan requires a labor force that is extraordinarily large for a 4,000 acre farm. The permanent employees number 200 men and women and during the harvest season, as many as 500 more pairs of hands are needed for picking.

Indicative of the isolation of the region in which Finca Volcan

is located is the fact that almost all of the workers are of pure Mayan blood and speak kekchia, an Indian dialect, instead of Spanish.

Finca Volcan has been with the Koester family for 60 years. The land was acquired originally by Denis Koester's father, who came to Guatemala from England just before the turn of the century to manage a coastal farm for a British company. He purchased the remote, highland property around 1918.

"Exactly how my father came to pick this spot, I don't know", Mr. Koester remarks. "The area was inaccessible except by foot

or horse-back, and the land was just as difficult to work then as it is now. But he loved this part of the world and the people in it."

It is obvious that Denis Koester shares these feelings.

"I don't think there's a more beautiful place in the world," he remarked while conducting a group of visitors around his plantation. "Granted, it's not the easiest spot in the world to farm. But since we're here, we do the best we can."

From every appearance, the best at Finca Volcan is very good indeed.

Courtesy: Rohm and Haas  
Reporter

With best compliments

## K. J. PLANTATIONS

QUILON - 691 004

Phone: Office: 2380, 2080      Resi: 2463, 3929

Telex: 0886 - 208      Telegram: 'SHANVILAS'

Coffee and Cardamom Estates at NELLIAMPATHY  
PALGHAT Dist.

Phone: Padagiri: 23



# The king of spices deserves the king of fertilizers



Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



# Monthly Statistical Abstract-August

## PRODUCTION

The final estimate of production for 1978-79 was 4000 M.T. The preliminary estimate for 1979-80 is placed at 4500 M.T. The State-wise break up is as follows:

STATE	PRODUCTION (M.T.)
Kerala	3400
Tamilnadu	300
Karnataka	800
Total	4500

## PRODUCTION SALES & PRICES

State-wise sales and weighted average prices for August 1979 and August 78 are given below.

State	August '79		August '78	
	Qty. (MT)	Av. Price (Rs/kg)	Qty. (MT)	Av. Price (Rs/kg)
Kerala	36	155.69	54	161.94
Tamilnadu	6	136.94	5	144.77
Karnataka	8	136.11	3	148.15
Total	50	150.30	62	159.91

Source: Reports from licensed auctioneers.

In the above table, the sales during August '79 was less when compared to August '78. This is mainly due to late crop during the current season.

## EXPORTS

Export of Cardamom during August 1979 was 55 M.T. worth Rs.99.56 lakhs with a unit value of Rs.182.30 per kg. as per the reports received from the Customs Authorities based on shipping bills passed and cess/duty collected, as against 39 M.T. valued Rs.72.05 lakhs during August '78. The unit export price during August '78 was Rs. 184.01 per kg.

According to reports received from Customs Authorities the export of Cardamom during April 79 to August '79 was 699 M.T. worth Rs. 13.07 crores with a

unit value of Rs.187.03 per kg. as against 628 M.T. valued at Rs. 10.94 crores with a unit value of Rs. 174.23 per kg. during the same period of the previous year.

Exports during April to August '79 has increased by 11% in terms of quantity and about 20% in terms of earnings compared to the previous year's performance.

## OFF SEASON EXPORT

Export target for the off-season period April '79-August '79 was 700 M.T. worth Rs. 13 crores, of which 699 M.T. valued Rs. 13.07 crores have been achieved during the period April '79-August '79.

## ANTICIPATED EXPORTS FOR 1979-80

The provisional export target for 1979-80 is placed at 3200MT with an earnings of Rs.64 crores. If production goes up the export may also go up by another 300 M.T. during the current financial year 1979-80. □



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

**COIR PRODUCTS -** Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

**SECRETARY, COIR BOARD, COCHIN-682 016 (KERALA)**

OR

**VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:**

1. NEW DELHI:	16A, Asaf Ali Road	Tel: No.	271388
2. BOMBAY :	5, Stadium House, Churchgate	..	295212
3. CALCUTTA :	22 Loudon Street.	..	445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	..	51216
5. MADRAS :	1/155, Mount Road	..	85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	..	35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	..	25753
8. BHUBANESWAR :	No. 17, Janpath, Babujee Nagar.	..	50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	..	25505
10. PATNA :	Biscomaun Bhawan, West Lawn		
11. HYDERABAD:	5-8-328, Chapel Road, Hyderabad-500 001	..	36276
12. JAMMU :	Gumat Bazar, Jammu Tawi		

or

**ANY OF OUR ACCREDITED DEALERS**



# AUCTION ARRIVALS OF CARDAMOM

Centre	August 1979			August 1978		
	Qty. Sold (kgs)	Prices (Rs/kg)		Qty Sold (kgs)	Price	(Rs/kg)
		Max:	Average		Max:	Average
KERALA						
Vandanmettu	4639	194.00	160.58	6476	207.40	164.26
Manthampara	17829	179.90	157.20	31411	195.00	161.44
Idumbanchola	—	—	—	4387	175.00	158.38
Kallar	13712	173.00	152.08	12323	190.10	163.28
Total (Kerala)	36180	194.00	155.69	54597	207.40	161.94
TAMILNADU						
Pattiveeranpatty	3197	195.00	141.74	4744	190.00	144.77
Bodinayakanur	2719	167.70	131.29	—	—	—
Total (Tamilnadu)	5916	195.00	136.94	4744	190.00	144.77
KARNATAKA						
Mercara	323	144.50	137.16	854	165.00	145.00
Mangalore	—	—	—	76	150.00	139.84
Saklespur	7652	200.00	136.39	2200	197.70	150.52
Girsi	231	139.68	125.49	167	145.77	136.87
Total (Karnataka)	8206	200.00	136.11	3297	197.70	148.15
Grand Total (India)	50302	200.00	150.30	62638	207.40	159.91

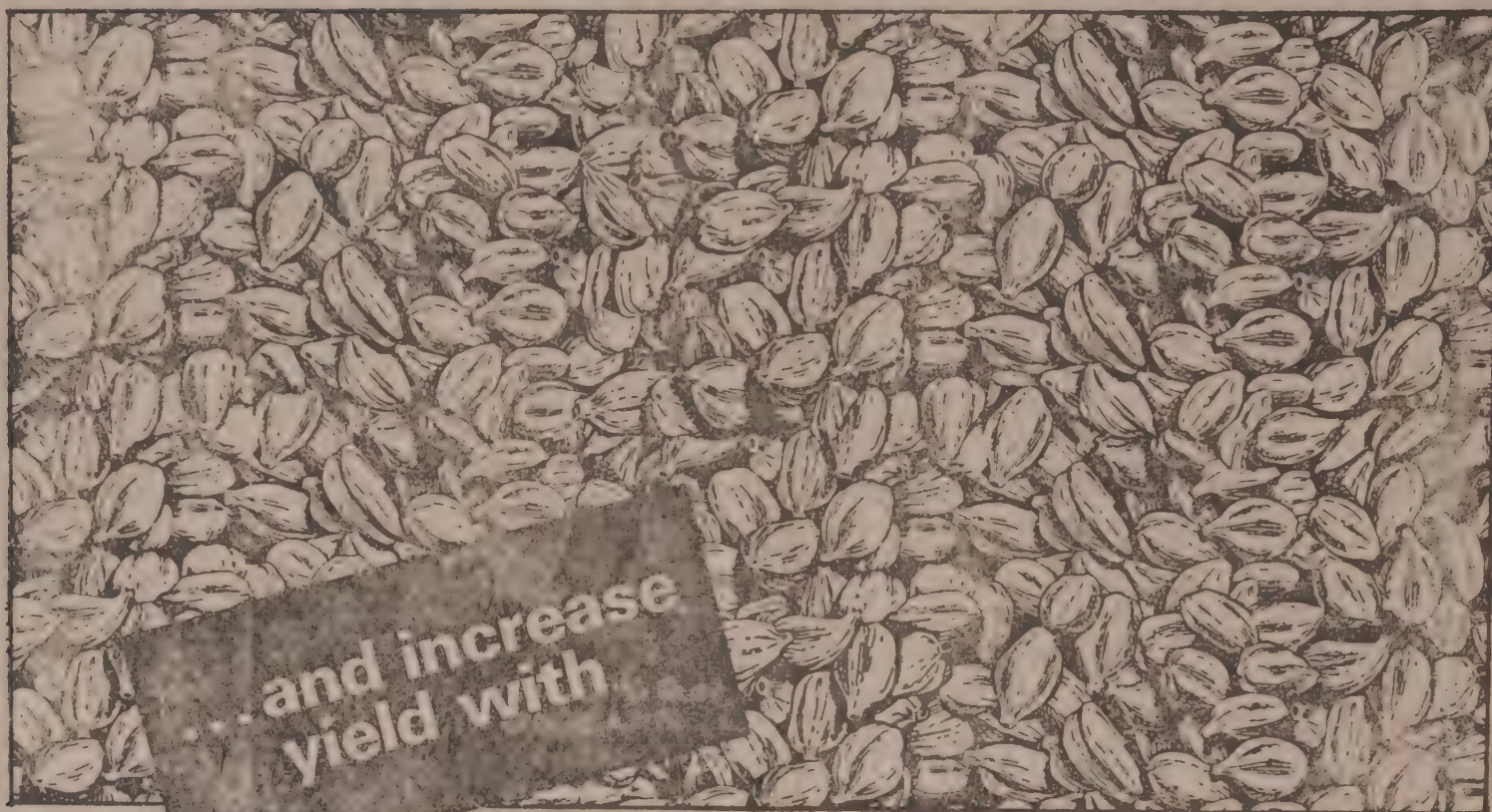
## AUCTION PRICES OF SRI LANKA CARDAMOM FOR JULY - AUGUST 1979

Cardamom	Auction prices for the week ended 6.7.1979.		Auction prices for the week ended 13.7.1979.		Auction prices for the week ended 18.7.1979.		Auction prices for the week ended 25.7.1979.	
	Sri Lanka Rs./Kg	Indian Rs./Kg.	Sri Lanka Rs./Kg.	Indian Rs./Kg.	Sri Lanka Rs./Kg.	Indian Rs./Kg.	Sri Lanka Rs./Kg.	Indian Rs./Kg.
LG 1	261-276	138-146	255-279	135-148	248 Nominal	131 Nominal		
LG 2	216-245	114-130	189-247	100-131	215-236	114-125		
B	Unquoted	Unquoted	160-165	85- 87	160-175	85- 93		
NS	100-140	53- 74	53-150	28- 79	75-155	40- 82		
	8-8-1979		15-8-1979		22-8-1979		29-8-1979	
LG 1	266-281	141-149	275-291	146-154	230-295	122-156	286-301	151-159
LG 2	210-220	111-116	229-258	121-137	210-260	111-138	240-275	127-146
B	Unquoted	Unquoted	170-190	90-101	160-181	85- 96	168-188	89-100
NS	109-172	58- 91	111-161	59- 85	126-150	67- 79	126-168	67- 89

Note: Sri Lanka Re 1 = Indian Rs. 0.5295  
Source: Market Report, M/s. Bartleet & Co. Ltd., P. O. Box No. 9, Colombo, Sri Lanka.



**Ensure adequate  
nutrient supply to your  
cardamom crop**



**ARIES**

**AGROMIN**

**India's First Chelated Plant Nutrients**



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.

For details write to :

The Agricultural Adviser

**ARIES AGRO-VET INDUSTRIES PVT. LTD.**  
P.O. Box 9417, Bombay 400 093



**Aries AGROMIN chelated plant nutrients increase crop yield economically**



# LETTERS TO THE EDITOR:

## new relationship

This is to congratulate you on an article in June issue about the Unpaid Workers of Cardamom Estates". All these days the symbiosis between cardamom and honey bees has been holding the world ransom. Now you have given a new lease to an entirely new relationship between cardamom and honey bees.

R. HALI  
RURAL INFORMATION BUREAU

## Labour the left hand- Employer the right hand

The editorial appearing in September issue of "Cardamom" is appropriate and timely and it applies not only to cardamom but to other sister plantations also.

We would go a step further and suggest that the planters should try to do their best to rehabilitate the existing labour force.

Here, round about my estate we have built about 80 Janata houses and I have given each occupant of the Janata House about 20 good coffee basket plants. Next year we will help them make their own nursery and plant about 500 plants each which will give them an additional income besides their daily wages. Later on they will have grown domestic animals for their prosperity. The Coffee Board will help to supply the seedlings and little doses

of fertilizers until the plants attain the bearing stage.

One Janata House occupant has already planted 25 cardamom plants and they are coming up well.

If the labour is the left hand, employer is the right hand of the plantation industry. This goes to show that love, mutual affection and timely help is absolutely necessary to maintain the sound health of the plantation industry.

N. K. GANAPATHI  
The Karnataka Cardamom  
Growers' Association

## Cardamom in the low lands

Sir,

I was interested to read that Mr. Ravindran has successfully raised Cardamom ("Cardamom" September 1979) at 200 metres elevation and that he has collected crop from the Malabar variety he has used.

During 1978 October, I brought 3 plants to Cochin and all of them are growing well below Mango Trees. Two cardamom plants given to my friend Mr. Subba Raj of Girinagar is doing well and it is hoped the first flowering would take place during September 1980.

One potted plant in my residence was adopted to my garden as an ornamental plant. I feel residents in Cochin having a flair for gardening can grow

cardamom and meet their domestic needs.

The high price of cardamom has brought cardamom plants out in the open. Grass lands are being put out with Cardamom and Dadaps and nursed by the small growers in 1 acre patches in the Vandiperiyar area. Planting material is in great demand. Enterprising nurserymen could, I believe, raise seedlings at Sea level to 2000' and sell the same to the hilly areas for a handsome profit.

K. V. S. KRISHNA  
TRAVANCORE TEA ESTATES  
GROUP

## The queen and the bees

Sir,

I read with considerable interest your article in the June issue of "Cardamom" regarding the role of honey bees in increasing the production of cardamom.

In the concluding para in the same heading you talk about the addition of suitable oil spray mixtures to ensure safety to honey bees. Normally except in Copper oils are not found suitable for adding with spray solution. Only stickers like TRITON AE, SANDO-VIT etc. are largely used which also to a certain extent serves as an adhesive to the particular chemical thus protecting the bees when collecting pollen. I hope this information would be useful to you.

Really I am very happy that you have written a nice article giving the experience of a number of planters.

R. SESHADRI  
T. STANES & COMPANY LTD.



# To millions around the globe



means garden fresh, hand picked and the best

## INDIAN CARDAMOM

We grow, deal in and export the best of  
Indian Cardamoms

# Enterprises

**Planters, dealers & exporters**

*Head Office:*

XXXVI/285-3 T. D. ROAD, COCHIN - 682,011

Telephone: 33589 & 38527    Cable: BLISS    Telex: 885/472 BLIS IN

**Plantations:**

1. P. V. Plantations  
Mali - P.O.,  
Vandanmettu  
Phone: 41

**Purchase Office:**

P. B. No. 34, Door No. 109  
Ward No. 2 East Palace  
Bodinayakannur  
Madurai Dist.

**Export Office:**

Vijaya House,  
Station Road  
Vikroly  
Bombay - 400 083

2. P. V. Plantations  
Santhanpara - P.O.,  
Munnar.

Phone: 441 & 442  
Telex: 0447/210 BLIN IN  
Cable: BLISS

Phone: 582420  
Telex: 011/6485 SUJA IN



Cardamoms are available in attractive retail packets of  
50 gms, 100 gms, 250 gms, 500 gms, and 1000 gms. in  
different grades





Shri S. G. Sundaram, Chairman, Cardamom Board delivering the presidential address at the season's first auction, Vandanmettu. To his left: S/Shri M. P. K. Nair, Chief Manager, Union Bank of India, V. Rajappan, (M/s) Jeewanlal & Co., Mathew Skaria, Treasurer, Cardamom Marketing Corporation.

## Bright prospects for cardamom".

Shri S.G. Sundaram, Chairman, Cardamom Board, informed that the production of cardamom for the current season will be comparatively better and that there will not be any fall in prices. He was addressing a large gathering at the inauguration of the first auction of the season at Cardamom Marketing Corporation, Vandanmettu, the largest cardamom auctioneers in India. In his presidential address Shri Sundaram also apprised the planters and traders of the increased demand for the commodity and exhorted the planters to produce more and more of quality cardamom in the forthcoming years as well.

Shri M. P. K. Nair, Chief Manager, Union Bank of India, inaugurated the auction.

Shri Mathew Skaria, Treasurer, Cardamom Marketing Corporation welcomed the guests.

## V.N.S. bags SEPC Award for Cardamom Exports

Awards for the topmost exporters of spices and spice products were presented at a function in Cochin by Mr. K. C. Sankaranarayanan, Member, Kerala, Board of Revenue.

The silver trophy for topmost exporter of spices and the silver shield for outstanding performance in export of pepper went to Nava Bharat Enterprises Cochin.

The silver trophy for topmost exporter of spices to general currency area and the silver shield for outstanding performance in export of turmeric went to Gandhi Sons, Bombay.

# News and Notes

The other winners were V. N. Surulivel Nadar and Bros, Bodinayakanur (cardamom), Parekh Brothers, Calicut (ginger), Mittulal Lalah and Sons, Madras (curry powder) and Synthite Industrial Chemicals, Kolencherry (oils and oleoresins of spices).

Mr. R. D. Shah, Chairman, Spices Export Promotion Council, presided over the function. Mr. S. P. G. R. Nithyanandan, Vice-Chairman, proposed a vote of thanks.

## S. C. Mariwala, New Chairman, Spices Export Promotion Council

Mr. S. C. Mariwala of Messrs. Kanji Moorarji, Bombay, was elected Chairman of the Spices Export Promotion Council at the Annual General Meeting of the Council. Mr. S. P. G. R. Nithyanandan of S. P. G. Ramaswamy Nadar & Sons, Virudhunagar, was re-elected Vice-Chairman.



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.

- Area under Cardamom

225 Hects.

Pasuparai Estate  
Pasuparai P. O.

Elappara

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.



## Board participates in UPASI Exhibition

The Board participated in the Industrial Exhibition from 3rd to 5th September 1979 at Coonoor in connection with the 86th UPASI Annual conference. Various charts and photographic panels depicting the growth of cardamom plantation industry in India, different grades of cardamom and various end-products of cardamom were displayed in the Board's pavilion. Shri K. J. Tanna, President UPASI inaugurated the exhibition.

## Pesticides kill honeybees

Indiscriminate and excessive use of pesticides is hampering the development of apiculture in India.

According to Mr. V. Ramachandran, Secretary of Khadi and Village Industries Commission, there has been a setback in production in the major honey producing States because of shorter and low floral seasons on one hand and danger from pesticides on the other.

Virulent pesticides being used by the farmers are affecting the crops as well as killing the bees. "There is an urgent need to find substitutes for these type of pesticides".

Efforts to organise bee-keeping as an industry have resulted in

the production of a sizable quantity of honey from domesticated bees".

Extensive research was being conducted by the Indian Council of Agricultural Research to study the effect of utilising the bees for cross pollination of oilseeds, fruits and garden crops.

—Indian Express

## UPASI Annual Conference

The eighty-sixth annual conference of the United Planter's Association of Southern India was held in Coonoor on 3, 4, 5 September '79. Shri M. R. Masani inaugurated the conference. Shri K. J. Tanna, president, UPASI, presided.

At the session on the 'International Commodity Situation, Shri S. G. Sundaram, Chairman, Cardamom Board spoke on the 'International Situation in Cardamom and its significance to India' (text of the speech given elsewhere). S/Shri B. K. Goswami Chairman, Tea Board and M. Venkatratnam Chairman, Coffee Board also spoke on the occasion.

At the executive committee meeting, Shri A. C. Shiva Gowde was elected new president of the UPASI. Shri K. J. Tanna will be the new Vice president. The following members were elected to the executive committee:- S/Shri George John, K.N. Narayana Iyer, K. C. Thomas, P. K. Kurian, B. G. pai, P. H. Prasad.

## Dr. Henry Austin

Union State Minister for Commerce & Civil Supplies



Born on 24th October 1920 at Shakthikulangara, Quilon, Dr. Henry Austin had his education at St. Alosius College, Mangalore; Law College, Trivandrum and then at the American University, Washington D. C.

Dr. Austin is a lawyer, journalist, social worker and trade unionist. He has been a member of AICC since 1959. He was General Secretary of KPCC (1959-61); General Secretary, Indian National Congress (1971-73) and President, Bharat Sevak Samaj. He was former member of the Kerala University Senate, Kerala Legislative Assembly (1965) and the Fifth Lok Sabha.

He has travelled extensively in Europe, U. K., U.S.A., Canada and various countries of South East Asia many times.

Dr. Austin was a member of the Cardamom Board from 5th June 1978 representing Lok Sabha till he became Union State Minister of Commerce, in charge of Cardamom, Coffee, Rubber, Tea and Foreign Trade — West Asia & Africa.





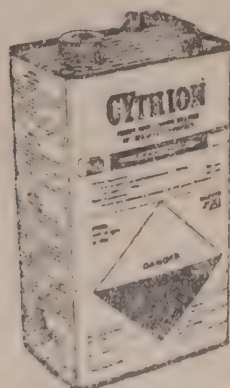
## **CYTHION** For complete livestock and poultry protection against insects and related pests.

Pest infested animals can  
mean only one thing —  
No profitability.

But now **Cythion** can give  
your livestock and poultry a  
fighting chance to live  
healthy, pest-free lives.

A low hazard insecticide,  
safe to handle and  
economical to use.

Used on and around animals,  
**Cythion**  
harm being done to them.  
**Cythion**. From Cyanamid.



## **CYTHION** Offers effective control against 100 different pests attacking 90 different crops.

Insect pests can cause  
havoc on your grain crops.  
And your profitability.

Now give your crops  
effective pest control  
treatment.

With **Cythion**.

A low hazard, powerful  
insecticide **Cythion** kills on  
contact. Prevents untold  
damage being done to  
your crops.

Safe, efficient, economical  
**Cythion** can be applied 1-3  
days before harvesting,  
leaving no harmful residue  
in the fully matured crops.  
**Cythion**. From Cyanamid.

## **CYTHION** Also controls over 75 different pests attacking 50 different vegetable and fruit crops.

When your vegetable and  
fruit crops are endangered  
by pests and insects there is  
only one solution.

**Cythion**.

A low hazard, powerful  
insecticide **Cythion** kills on  
contact. Prevents untold  
damage.

**Cythion** can be applied 1-3  
days before harvesting,  
without leaving any  
harmful residue.

**Cythion**. From Cyanamid.

**CYTHION**  
INSECTICIDE  
MALATHION

**CYANAMID**  
the name every farmer trusts

Cyanamid India Limited,  
Agricultural Division,  
P. O. Box No. 9109, Bombay 400 025.

\* Registered trademark of American Cyanamid Company, Wayne, New Jersey, U.S.A.



## Spices Symposium in London

The commonwealth Secretariat, London is organising an International Symposium on the Export Development of Spices in London from 22nd to 26th October 1979 in Collaboration with the International Trade centre / UNCTAD / GATT, Geneva.

Shri S. G. Sundaram, Chairman, Cardamom Board; Shri V.C. Pande, Joint Secretary to the Government of India and Shri S. C. Mariwala, Spices Export Promotion Council are the delegates from India to the Symposium.

The objective of the Symposium is to develop markets for spices, with particular emphasis on processed spice products, and thereby generate additional foreign exchange earnings and increase employment opportunities in the producing / exporting countries by initiating and implementing action-oriented marketing and promotional programmes. The Symposium will bring together for a period of one week, representatives of producing countries like India, Guatemala, Sri Lanka, Papua New Guinea, Indonesia etc. and representatives of major importing countries and marketing / commodity specialists from international organisations like UNCTAD, FAO, IBRD, UNIDO, ISO, Pepper Community etc. to have meaningful discussions on all aspects of spices. It will also review international trade in spices & its recent trends, and evaluate & apprise the various problems related to the marketing of spices. It is expected that the Symposium will give the rare opportunity to the participants to exchange experience and to initiate action-oriented programmes in the fields of production, supply, prices, marketing etc.

Shri Sundaram will be presenting a paper on "Producers' Co-operation" in the Symposium as desired by the organisers and the Government.



Shri S. G. Sundaram, Chairman, Rubber Board at the 7th conference of ANRPC in Port Morseby, Papua New Guinea. To his left are delegates from Malaysia.

## Rubber Conference in Papua New Guinea

Shri S.G. Sundaram, Chairman, Rubber Board participated in the 7th Conference of the Association of Natural Rubber Producing Countries held at Port Morseby, Papua New Guinea, from July 30 to August 3, 1979. He was representing Government of India.

Addressing the august gathering Shri Sundaram stated that the deliberations of the Conference assumed great importance in the context of growing energy crisis. He also said that the rubber producing countries have to meet the challenge of growing demand and embark upon a dynamic production policy to increase the productivity and quicken the pace of development. He continued: "Rubber has to play a very vital role. And the world's

attention is focussed on us. We have to arrive at policy measures for stabilisation of prices and ensure remunerative returns to the producers".

On his way back to India Shri Sundaram spent 5 days in Malaysia studying the rubber industry in Malaysia and had discussions with the representatives of RRIM, MRRDB, RISDA and FELDA.

## Sundaram Appointed Director

Shri S.G. Sundaram, Chairman, Rubber Board and Cardamom Board has been appointed as one of the Directors of the Plantation Corporation of Kerala Ltd. by the Government of Kerala.



With the best compliments from:-

## **M/S. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No. 4

With the best compliments from:-

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No. 11





The senior officials of Cardamom Board at a discussion with Dr. Henry Austin, Union State Minister for Commerce and Civil Supplies while he visited Cochin.

## Dr. Henry Austin in Cochin

On his first official visit to Cochin and Kerala during the first of September 1979 soon after taking charge as the Union State Minister for Commerce and Civil Supplies, Dr. Henry Austin

was given a warm reception at the Cochin Airport on his arrival on 1st September by Senior Officers of the Departments and autonomous bodies under the Commerce Ministry, and the general public.

On 5th September, the Senior officials of the Cardamom Board and representatives of cardamom plantation industry had discussion with the Minister on the various aspects of the cardamom plantation industry.

At the press conference held on 1st September, Dr. Austin said that required allocation of funds would be made in the current year's budget for the construction of the Head office building of the Cardamom Board at Cochin. He also informed that a foreign office of the Cardamom Board will be opened in Bahrain shortly.

# NEWS FROM THE FIELD

## Sub-soil Irrigation

M/s. Waterfalls Estate, Valparai having cardamom plantation of 22.5 acres in their west division (as on 30-5-1979). During last summer, they have adopted sub-soil irrigation since mulch material availability was very scarce. For every cardamom plant, 2 to 3 thick polythene bags having size of 9" length and 3" breadth, were fixed in the soil, after cutting the bottom in a cross-way. Once in 15 days, 100-450 ml. of water was poured in each bag. This practice was carried out during the period January to April. The soil moisture was maintained and plants have survived the summer well. Total expenditure that has been involved, per acre, for one sea-

son, was Rs. 70/- - Rs. 90/- including the cost of polythene bags.

## Intercrop Achievement

Shri K. Krishnaraja, of Mettupalayam, is having 600 plants of cardamom, as inter-cultivation, with Clove, Nutmeg and Jack, in his plantation at Burliar, which is lying on Mettupalayam - Ooty route. Elevation of his estate is 3500 M.S.L. Most of the plants are 6-7 years old. From the 600 plants of cardamom he has harvested 150 kgs. of dried cardamom, during 1978-79 season.

## Adequate rain, better yield

In Havakal Estate, at Kotagiri 10 acres were planted with car-

damom some 7 years back. It is a North East Monsoon area, getting an average of 50-60 inches of rain annually. It has yielded 1000 kgs. of dried cardamom, during 1978-79 season.

## 550 kgs. from 5 acres

From 5 acres of 1976 planted area, belonging to M/s. Manjushree Plantations Ltd., at Gudalur a yield of 550 kgs. of cardamom (dried) has been harvested during 1978-79 season.

## More area under cardamom

During 1976-77, 1977-78 and 1978-79 seasons, a total of 384 acres were brought under cardamom cultivation (New Planting) in Valparai area of Coimbatore District. □



# CULTIVATION OPERATIONS

## NOVEMBER

	South West Monsoon areas (Kerala-Tamilnadu)	North East Monsoon areas (Tamilnadu)	South West Monsoon areas (Karnataka)
Primary Nursery	Clearing the site for the primary nursery. Two rounds of digging and removal of weeds, stubbles, stones etc.	Formation of beds and spreading jungle soil over them. Watering to allow weed seeds to germinate. Uprooting of seedlings from previous season's primary nursery for transplanting to secondary beds.	Completing pandal construction and covering with leafy twigs or coconut fronds. Routine watering and prophylactic plant protection measures.
Secondary Nursery	Plant protection measures. Watering as required. Second round weeding.	Uprooting of left over secondary seedlings for gap filling in field. Transplanting of primary seedlings for newly formed secondary beds. Mulching with dry leaves and watering.	Routine watering, plant protection and weeding.
Starting of New Plantations	No work.	Gap filling.	Routine maintenance.
Maintenance of Plantations	Third round harvest. Thrips control. Forming basins around one year old plants continued.	Third round harvest. Thrips control. Second round weeding continued.	Crop Harvest, curing, storage. Watch and ward.

### Trade Enquiries

Naila Enterprises,  
P. O. Box 285,  
Dubai-U.A.E.

Fadel Ahmed Ali Al-Shukri  
P. O. Box 5970  
Safat  
KUWAIT.

Telex: BTH KT 2307  
Att: NEW HOPE

Cable: NEW HOPE  
Tele: 417880

M/s Issa Karmout  
P.O. Box 1694  
Basman Street  
AMMAN  
JORDAN.

### SINGAPORE

Variety	Prices during July 1979 S\$ per picul    Rs./kg.	
Cardamoms, White "AB"	2,500.00	158.14
Cardamoms, Wild-Indonesia	500.00	31.01
Cardamoms, Wild-Nepal	500.00	31.01

Note: One picul = 60.47 kg.  
1 S\$ = 3.75

Source: High Commission of  
India, Singapore.



# GANDHI SONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONOOR,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHI SONS

'GANDHI BUILDING'  
232, Samuel Street  
BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



Phone: 23

Established in 1959

Gram: ELAKAY

# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.  
Kerala, India.



The best and foremost cardamom auctioning  
establishment in India.

**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Selection of all qualities of cardamom possible  
and any quantity of cardamom available.

We handle more than 60% of the cardamom produced in  
Kerala securing the highest prices.



# Cardamom



NOVEMBER 1979



*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**

**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

**WINNERS**

**'CERTIFICATE OF MERIT'**  
**FOR THEIR MERITORIOUS EXPORT PERFORMANCE**  
**IN CARDAMOMS FOR THE YEAR 1971-72**  
**FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



## CARDAMOM BOARD

Chairman: S. G. SUNDARAM I. A. S.

Director: K. V. GEORGE

Secretary: K. G. NAYAR

### "CARDAMOM"

Readers are invited to share their experiences in the cardamom plantation industry through 'Cardamom'. Articles and set-ups on achievements, failures and success stories etc. related to all aspects of the plantation industry along with photographs if any, may be sent to us for consideration. Selected materials will suitably paid for.

*Chief Editor*

K. R. KURUP

*Editor*

C. P. SALEEM

## CARDAMOM BOARD

P. B. No. 1909

ANERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

TELEPHONE : 33837, 33209

TELEX : 0885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

Vol. xii

NOVEMBER 1979

No. viii

### *in this issue*

Chairman speaks	2
Deforestation and change of Micro-Macro climatic conditions	3
Cardamom—as an intercrop in Arecanut	9
Market for cardamom—The Netherlands	13
Integrated pest control	17
Pesticides for farmers	21
Monthly statistical abstract—September	25
Auction arrivals of cardamom	27
News and notes	29
Trade enquiries	35
Cultivation operations	36



## **Confront, consolidate and compromise through organised efforts**

Over the last few years the cardamom plantation industry has made significant contributions to the nation in several areas. This is well discernible in the production as well as export fronts. From 3000 M. T. in 1975-76 the production went upto 4000 M. T. in 1978-79. Export has also gone up considerably from 1940 M. T. in 1975-76 to 2900 M. T. during last year. This increasing trend in export has reflected in export earnings also. Cardamom touched the mark of Rs. 60 crores in export value during 1978-79. This was only Rs. 19 crores during 1975-76.

The whole credit for such an achievement naturally goes to the various people connected with the industry; especially those on the production front. The present achievement, as far as the cardamom plantation industry is concerned, is indeed something all of us can be proud of. At the same time, we have to find out new ways and means for boosting production in the background of increasing demand from consuming countries. One method of increasing the production is by increasing the per acre yield from the existing plantations. This technique is now adopted by other producing countries like Guatemala, Tanzania and Sri Lanka also. Another approach for increasing the production is by extending the area under the crop making use of suitable virgin lands and areas wherever available. But it may not be wise to convert lands with other crop into cardamom plantations.

In order to find out various ways and means to increase the per acre yield from existing plantations, various research studies are being taken up at the main station of Indian Cardamom Research Institute of Cardamom Board at Myladumpara, Idukki District. Similar studies will be taken up at the Regional Stations in Karnataka and Tamilnadu also.

Market Development is another area in which we have to put more attention. The recent market surveys conducted in the Arab and peripheral Arab markets have revealed that about 200-300 tonnes of cardamom could be exported annually to Libya and Jordan. A market development study is also being planned in U. S. A., Canada, West Germany and Japan with the assistance of International Trade Centre of UNCTAD/GATT. It is gratifying to note that the ITC has now come forward to extend further help for undertaking future projects for probing into and developing the international markets for Indian cardamom. Besides this, active participation in International Fairs has been playing a major role in boosting our exports.

Our efforts to form an 'International Cardamom Community' is gaining more and more attention from other producing countries. The benefit of such a community would be that all could share the benefits of latest finds in the fields of production, marketing and exports. The world market for cardamom could also be shared among the various producing countries eliminating unhealthy competitions.

Apart from all these, what is of prime importance is the understanding between the different sectors of the cardamom industry. In the present world no one can gain anything by keeping the other partner in the dark. Changes in Government and officials is a regular phenomenon. But the plantation industry is here to stay and flourish. Hence, it is in the interest of the various sectors of the industry to unite. There may be conflicts, confrontations and competitions. Let those be based on healthy principles, and for consolidation and compromise. Let new institutions be developed. Let new organisations be created for active pursuit of their goals. Let each sector stand on its own feet and fight for its rights. There is no need to look up for leadership outside in facing problems to be handled.



# DEFORESTATION AND CHANGE OF MICRO-MACRO CLIMATIC CONDITIONS

V. A. Abraham, K. V. Gopinathan, Padmanabhan V., Saranappa

Large scale denudation of forests in and around cardamom tracts in recent years is the greatest handicap in successful cultivation of cardamom. This practice has upset the ecological balance which is essential for any crop. For better plant performance, it is highly essential to maintain a suitable microclimate in cardamom plantations.

## SHADE:

Being a shade loving plant, cardamom does not tolerate direct sunlight. Shade acts as a moisture and temperature regulator thus creating a microclimate which favours vegetative growth and root development. As soon as the soil is directly exposed to the tropical sunlight, soil moisture content and soil temperature fluctuate. Thus root development becomes restricted if there is no proper shading.

## IMPORTANCE OF FOREST GROWTH:

In a thick growth of forest, the branches of trees are frequently close enough to touch each other and form a closed canopy. Small trees, shrubs etc. often make up a more or less dense undergrowth. The leaves, twigs, stems and branches of such a forest expose innumerable litter surfaces, aggregating under good conditions an area several times greater

than that of the ground beneath. This loosely woven roof is the first line of protection against soil erosion and excessive runoff. During rains, a large portion of the rain-drops shatter into spray or mist. Another part of precipitation drips gently down plant stems and tree trunks and flows harmlessly to the ground. Covering the forest floor, is a blanket of wood litter performing these dual functions:

- i) absorption by the litter, part of the rain water.
- ii) establishment of a condition favouring the infiltration (intake) of a much larger part of the rainfall by keeping the water clear and ready to filter freely into the protected soil beneath. With this covering, the soil is much more permeable to water. From the stand point of soil protection and water intake, this debris covering the forest floor is the most effective surface cover.

## EFFECT OF RAIN ON EXPOSED SURFACE:

Rain on an unprotected soil surface will spoil the soil structure completely due to various types of erosion. Moreover, the soil compacts and the large pores in the layer below the soil surface become clogged with finer soil

fractions washed down from the surface layer. Quick drainage through the soil layer just below the surface becomes more difficult, especially drainage during periods of short but heavy tropical rains. Surface run-off increases and erosion becomes severe. The breakdown of the crumb structure by the impact of heavy rain and by the accelerated decomposition of the organic matter make the soil less resistant to erosion and lose its water-holding capacity.

Soil organic matter status gradually reduce after the removal of forest growth. A tropical forest soil under its protective cover is delicately balanced. The rapid breakdown of soil organic matter is being offset by the steady accumulation of fresh organic material from the surface vegetation. Although decomposition is rapid even under shade, fresh organic material accumulates continuously when the forest is intact. Under a thick growth of plants, the plant residues are sufficient either to keep the level of soil organic matter stable or to cause a small but steady increase. Only surface wastes and roots left in the soil can supply fresh organic material after the forest is removed. Lower organic deposits together with accelerated decomposition from the soil rapidly reduce its fertility.



# V. N. SURULIVEL NADAR & BROTHERS

Cardamom Exporters, Planters, Auctioneers & Commission Agents  
P. O. BOX No. 9 :: BODINAYAKANUR-626 513 :: S. INDIA

Established. 1947 Phone: 232, 255 Cable: DIAMOND Telex: 447 202 VNSB

Serving all the Principal Markets in the World and Enjoying the Highest  
Reputation overseas. Buyers for over three decades

## WINNERS OF

Awards and Certificates of Merit for Outstanding Export Performance in Cardamom  
from Government of India for the years 1969-70, 1970-71, 1973-74, 1976-77  
From Spices Export Promotion Council for 1973-74, 1974-75, 1975-76, 1976-77

## PLANTATION UNITS

1. THE ELLEMBILLERY ESTATE, MEPPADI, KERALA
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, KERALA
3. THE VELLARMALA ESTATE, MEPPADI, KERALA

## AUCTION UNIT

UNITED CARDAMOM AUCTIONEERS, SANTHANPARA, KERALA

## REGIONAL OFFICE

224/3, 'RAMKRISHNA NIKETAN' SIR BALACHANDRA ROAD  
MATUNGA, BOMBAY-19 DD

Phone: 473146 :: Cable: ARASAN

## BRANCH

SHORTLY OPENING AT "SAGAR" No. 9, II FLOOR  
NARSHI NATHA ST., BOMBAY-400 009

OUR SPECIAL EXPORT BRANDS OF REPUTE IN ALL MIDDLE EAST COUNTRIES

'MUMTAZ' EXTRA BOLD CARDAMOM  
'HANDPICKED' GREEN CARDAMOM  
'TAJ' BRAND SUPERIOR BOLD CARDAMOM  
'DIAMOND' BRAND SPECIAL GREEN CARDAMOM

Largest Exporters of all Standard Agmark Grades of Green Cardamom  
Cardamom Seeds, Husks to U.K., U. S.A., CONTINENT, U.S.S.R. EAST  
EUROPEAN COUNTRIES, JAPAN with a reputation for quality and correct weight

VNS — A TRUSTED NAME IN CARDAMOM AT HOME & ABROAD  
SERVING THE NATION & THE TRADE FOR WELL OVER THREE DECADES



## LOSS OF ORGANIC MATTER AND ITS ACTION:

When emphasis is made on the importance of afforestation and its beneficial effects, it is pertinent to talk about the importance of organic matter and the role forest plays in maintaining the soil organic matter below a thick canopy. The functions or rather, advantages of organic matter are great. By deforestation such valuable organic matter is lost. This in turn means that the following functions of organic matter also may not take place which is an irreparable loss to the crop:

- i) The addition of easily decomposable organic residues cause the synthesis of complex organic substances that bind soil particles into structural units called aggregates. These aggregates help to maintain a loose, open, granular condition. Water is then able to enter and percolate more easily through the soil. The granular condition of soil maintains favourable conditions for aeration and permeability.
- ii) Plant roots require a continuous supply of oxygen. Large pores make it easy for the soil to take in oxygen from the atmosphere and to give out carbon dioxide.
- iii) Water holding capacity of the soil is increased by organic matter. This does not necessarily mean an increase in available water supply to plants since organic matter holds water fairly tightly. Thus the permanent wilting percentage is increased.

- iv) Organic matter serves as a reservoir of nutrient elements that are essential for plant growth. Most of the soil nitrogen occurs in organic combinations. Only a small fraction, usually 1-3% is present in inorganic forms at any given time. Also, a considerable quantity of phosphorus and sulphur exist in organic forms. Upon decomposition, organic matter supplies the nutrients needed by growing plants as well as many hormones and antibiotics. These are released in relation to the needs of the plants. When environmental conditions are favourable for rapid plant growth, the same conditions favour a rapid release of nutrients from the organic matter.
- v) Organic matter under decomposition produces organic acids and carbon dioxide which help to dissolve minerals such as potassium and make them available more to the growing plants.
- vi) Organic matter helps to buffer soil against rapid changes in plants due to the addition of lime and nutrients.
- vii) It serves as a source of energy for the growth of soil microorganisms. All heterotrophic organisms—forexample, nitrogen fixing organisms—require easily decomposable organic matter as their source of carbon. Without carbon, nitrogen fixation by azotobacter and clostridium would be impossible.
- viii) Humus provides a storehouse for the exchangeable and

available cations—potassium, calcium and magnesium. Ammonium fertilizers are also prevented from leaching because humus holds ammonium in an exchangeable and available form.

- ix) Fresh organic matter supplies food for earthworms, ants and rodents. These burrow in the soil and construct extensive channels that not only serve to loosen the soil but also to improve drainage and leaching. Earthworms can flourish only in soils that are rich in organic matter.
- x) Evaporation losses are reduced by organic mulches.
- xi) Trashy, coarse organic matter of shade trees on the surface of soils reduce losses of soil by wind erosion.
- xii) Surface mulches lower soil temperature in the summer and keep the soil warmer in winter.
- xiii) It has a special function in making soil phosphorus more readily available in acid soils. Upon decomposition, organic matter releases citrates, oxalates, tartarates and lactates which combine with iron and aluminium more readily than phosphorus. The result is the formation of less insoluble iron and aluminium phosphates and the availability of more phosphorus for plant growth.
- xiv) Organic acids released from decomposing organic matter helps to reduce alkalinity in soils.

The functions of organic matter and its importance in main-



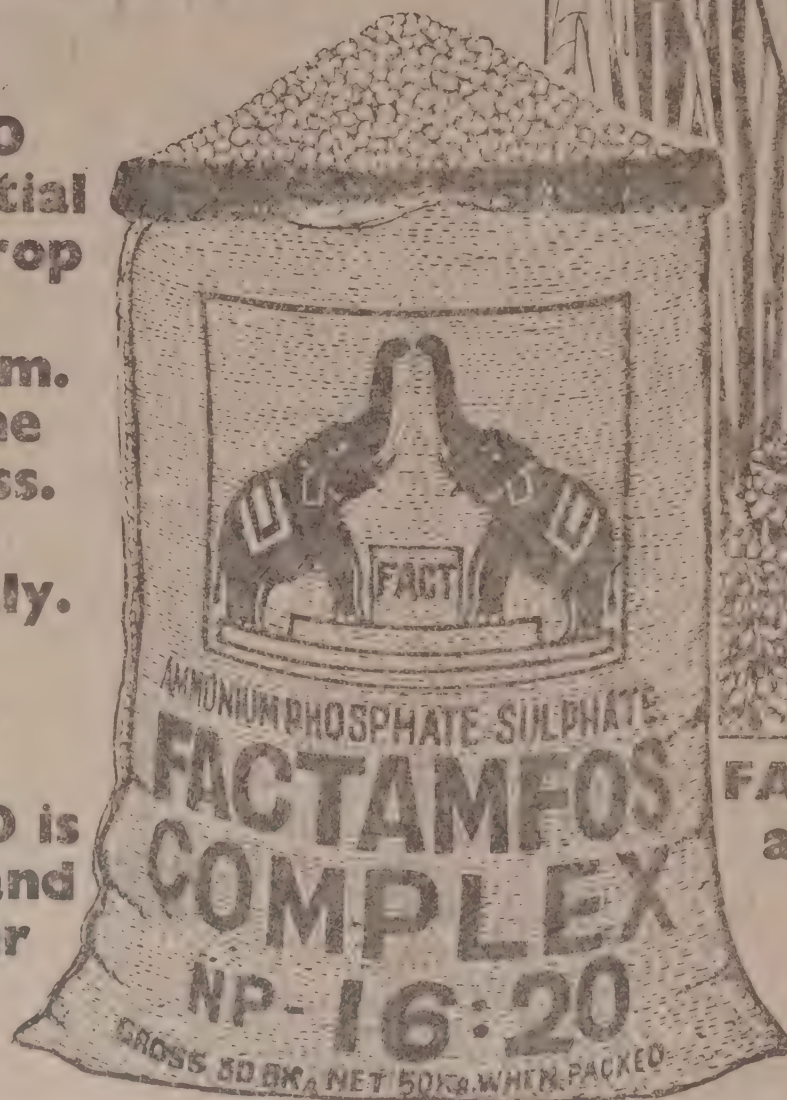
**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available to  
planters**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**  
(A Govt. of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekandeswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



aining soil fertility are explained in the above paragraphs. Since organic matter is being supplied by forest growth, the importance of retaining forest in good health and the detrimental effects of deforestation go without saying.

#### BIOCYCLING:

This is a unique feature found in cardamom plantations. Among plantation crops, almost no other crop experiences this benefit through the maintenance of tree growth in situ.

Often, nutrients applied to soil have chances of leaching down below the surface layer. Trees are especially effective in absorbing such nutrients and trace elements from great depths and translocating them to the leaves according to their requirements. Falling leaves thus effect a recycling of these minerals to the upper soil humus layer.

This is a normal and routine beneficial process taking place in forests. Such a facility is being lost for ever as a result of deforestation.

#### DISTURBANCE IN SOIL TEMPERATURE:

On removal of trees, filtered sunlight is removed and the soil becomes exposed to direct radiation which increases the soil temperature. As already mentioned, this upsets the ecological balance and the microclimate in plantations. Plant growth as well as chemical and biological activities in the soil are greatly influenced by the soil temperature. Soil temperature also regulates soil-air movement to some extent. The soil temperature is primarily

dependent on the heat that soil absorbs in relation to the losses through radiation and evaporation of soil moisture.

#### LATERISATION:

Fluctuations in soil temperature by the exposure of the soil to direct sunlight due to deforestation leads to laterisation. This makes the soil unfit for cultivation.

Humbert (1948) suggested that laterite forms in a climate that has alternate wet and dry seasons. His descriptions and illustrations indicate that the laterite he observed was in an open 'savannah' (open vegetation) that was gradually replacing forest. This is a common condition where a dry season is prominent. The change from soft laterite to the hard form within a few years after man has cleared the forests has been reported by Alexander and Cardy (1962) in French Guinea and other parts of West Africa.

#### WATER- HOLDING CAPACITY:

When the forest is intact, a major portion of precipitation drips gently, down plant stems and tree trunks and reach the ground. As a sponge, the vegetative bed provided by the forest growth absorbs this water and passes it on to the soil. By this process, loss of rain water is minimised. In addition, organic matter enhanced water-holding capacity. These together conserve the moisture to a greater extent. When the forest is removed, the soil cover is lost and so erosion increases.

#### WIND EFFECT:

Wind velocity is increased as there is no windbreak (no trees). Due to high velocity of wind the rate of transpiration and evaporation will be increased. Moreover, plants suffer due to the physical pull of the high velocity wind. The enhanced evaporation and transpiration deplete soil moisture rapidly.

#### LOSS IN RAINFALL DUE TO DEFORESTATION:

Of late, the receipt of rainfall has been very low. The main reason, as far as India is concerned, is attributed to deforestation. The presence of trees create a cool atmosphere in that region which condenses the clouds above and gives rain. Due to high wind velocity caused by the removal of forests, the rain-bearing clouds are carried away by the fast moving wind.

Cardamom being a moisture loving plant is greatly affected by dry winds.

Normally when some new practices are recommended or existing practices are modified, it will involve invariably the investment of money. But, in this case, though afforestation cannot be practised at all, at least deforestation can be eliminated without involving a single penny.



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337



*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms  
for the year 1973-74 from the Ministry of Commerce,  
Govt. of India and also from the Spices Export Promotion  
Council, Cochin and shield for 1975-76 from the Spices  
Export Promotion Council, Cochin.



Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and  
Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"  
IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



# Cardamom- as an intercrop in Arecanut

H. C. Padmanabha, B. Sc. (Agri.)\*

Cardamom has become an important foreign exchange earner among spices, in the recent past. Foreign exchange equivalent to Rs. 60 crores realised during the year 1978 - 79 is the highest export income ever recorded in cardamom. There is good demand for Indian cardamom both in India and outside particularly in the Middle East countries. Hence, there is scope for further increasing the production of Indian Cardamom.

Cultivation of cardamom (*Elettaria cardamomum*) is almost confined to the evergreen rain forests of Western Ghats situated in the three Southern States of Kerala, Karnataka and Tamilnadu. It is mostly grown as a pure crop under the shade of tropical forest trees. But cardamom is also cultivated as a mixed crop with arecanut in Chickmagalur, North Kanara and Shimoga Districts in Karnataka State.

Because of its shallow root system, medium height, compact size and preference for shade, cardamom has become an important mixed crop in arecanut. A study of a typical areca cardamom plantation reveals that cardamom can be grown in areas where soil retains enough moisture during summer months or where sufficient facility for irrigation during summer months is available. Also proper facilities for drainage should be provided in such plantations for draining out excess

water during monsoon seasons. The shade provided by the tall areca trees and the irrigation given to areca gardens during summer months enable successful cultivation of cardamom.

Areca growers threatened with problems like Koleroga (phytophthora araceae), Hidimundige (Bund), Yellow Leaf Disease etc. in addition to uncertain demand and market prices for arecanut, have turned to cardamom as an intercrop because of its very attractive prices and less expensive cultivation when grown as an intercrop.

Areca gardens which are irrigated during summer months or

which are low lying flat lands with adequate drainage facility are selected for planting cardamom. In old gardens it is planted in alternate rows of arecanut at a spacing of about 2 m from plant to plant. Cardamom plants come up well by the side of drains, where drains are provided, or on the sides of irrigation channels. In new gardens it is planted in between rows of areca plants. About 1250 to 1500 plants are accommodated in a hectare of areca garden. Cardamom plants in arecanut gardens are not properly attended to with regard to application of chemical fertilizers. But particular care is being taken



A Successful Areca Cardamom Plantation

\* Field Officer, Cardamom Board



# The king of spices deserves the king of fertilizers



Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



n pest/disease control. Pests like shoot/capsule borer, thrips and diseases like leaf spot, clump rot etc. are common in cardamom plants grown as an intercrop in arecanut. Damage to plants by falling areca fronds, damage caused by monkeys, field rats, squirrels etc. are some of the problems in the cultivation of cardamom in areca gardens. Though an average crop of about 35 to 100 kgs per hectare is obtained from a well maintained plantation, scientific methods of harvesting and processing of cardamom have not been adopted by many of the growers.

Though the cardamom plants grown as a mixed crop in areca gardens fetch appreciable returns, such a method of cultivation has certain limitations also. Intercultivation operations required in arecanut plantations every third

or fourth year are made difficult due to the presence of cardamom plants. Also, while laying out new irrigation/ drainage channels every eight to ten years, the cardamom plants in such areas will have to be removed. Hence, for obtaining a uniform stand of cardamom as an intercrop in areca plantations, the gardens are to be replanted at least once in eight to ten years.

Immediate removal of fallen areca fronds to reduce the damage to cardamom, control of pests like field rats, squirrels etc. by the use of poison baits/ traps, timely control of insect pest/ diseases by proper and judicious use of insecticides / fungicides, harvesting at the right stage of maturity and curing in well built curing chambers will definitely help in increasing the production and improving the quality of car-

damom produced from areca gardens.

Areca plantations with cardamom as an intercrop is negligible at present. Preliminary results indicate that there is considerable scope for introducing cardamom in the extensive areca plantations in Karnataka State. It may be noted, in this connection, that while introducing cardamom as an intercrop in arecanut plantations, the nutritional aspects of cardamom in such areas are to be studied in detail and suitable recommendation made. The economics of this system of cultivation also is to be compared with other existing cash or plantation crops in areca gardens so that definite conclusions are arrived at on the most profitable intercrop in arecanut. □

Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

## TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

Factories at :

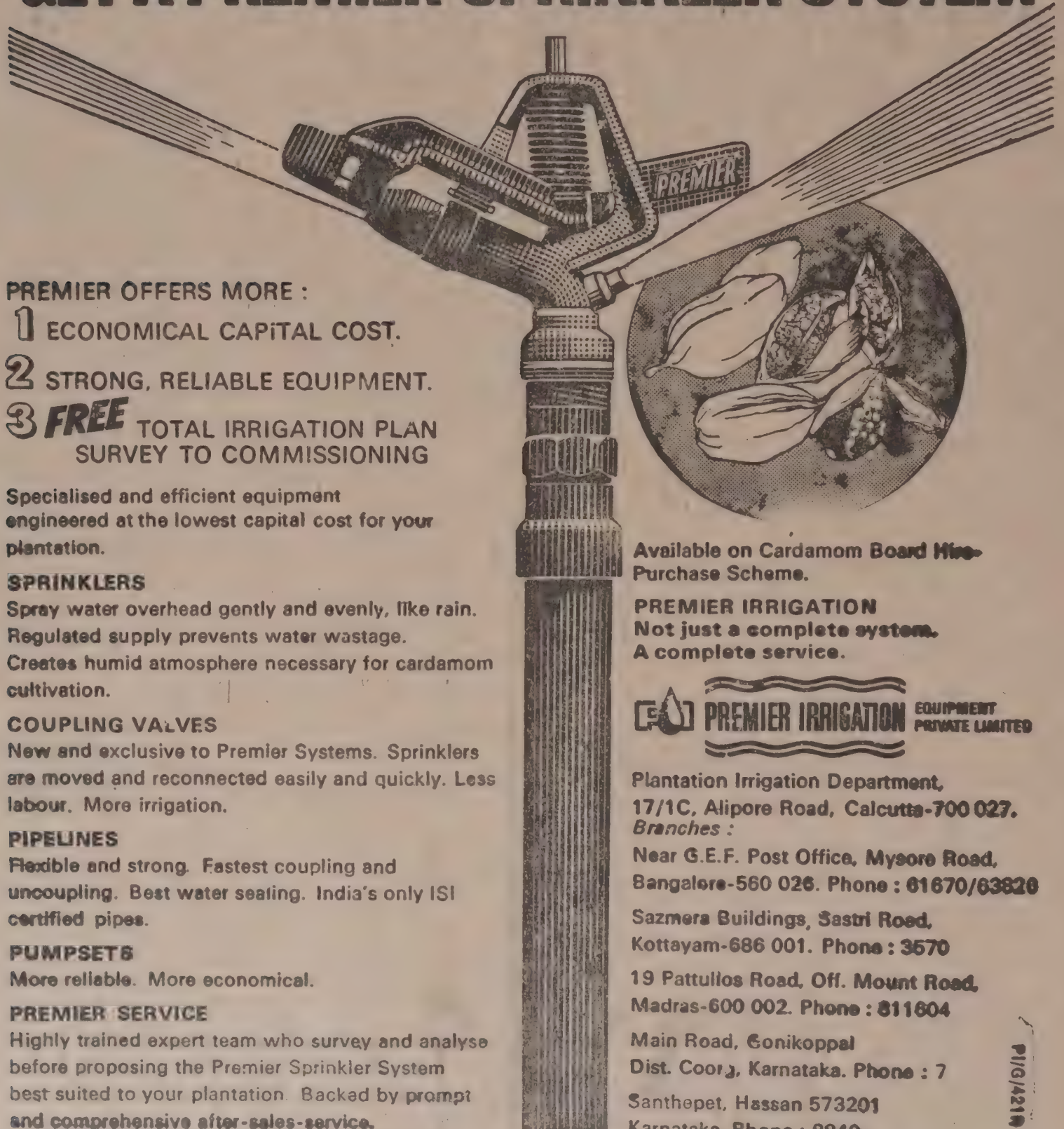
- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. 'KONUR  |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.



# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM



**PREMIER OFFERS MORE :**

- 1** ECONOMICAL CAPITAL COST.
- 2** STRONG, RELIABLE EQUIPMENT.
- 3 FREE** TOTAL IRRIGATION PLAN SURVEY TO COMMISSIONING

Specialised and efficient equipment engineered at the lowest capital cost for your plantation.

**SPRINKLERS**  
Spray water overhead gently and evenly, like rain. Regulated supply prevents water wastage. Creates humid atmosphere necessary for cardamom cultivation.

**COUPLING VALVES**  
New and exclusive to Premier Systems. Sprinklers are moved and reconnected easily and quickly. Less labour. More irrigation.


**PIPELINES**  
Flexible and strong. Fastest coupling and uncoupling. Best water sealing. India's only ISI certified pipes.

**PUMPSETS**  
More reliable. More economical.

**PREMIER SERVICE**  
Highly trained expert team who survey and analyse before proposing the Premier Sprinkler System best suited to your plantation. Backed by prompt and comprehensive after-sales-service.

Available on Cardamom Board Hire-Purchase Scheme.

**PREMIER IRRIGATION**  
Not just a complete system.  
A complete service.

 **PREMIER IRRIGATION** EQUIPMENT PRIVATE LIMITED

Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
*Branches :*  
Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 01670/63820  
Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570  
19 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604  
Main Road, Gonikoppal  
Dist. Coorg, Karnataka. Phone : 7  
Santhepet, Hassan 573201  
Karnataka. Phone : 8840

PIG/4219



*Following is an excerpt on The Netherlands from the report on the market survey jointly carried out by Cardamom Board and International Trade Centre, Geneva in the Middle East and West European countries. The survey team consisted of Shri N. Bharathan Pillai, Market Development Officer, Cardamom Board and Mr. Brian Mc. Loughlin, Marketing Consultant, International Trade Centre, Geneva. Excerpts on Kuwait, Bahrain, Iran, Qatar, Saudi Arabia, United Arab Emirates, Sweden, Finland, Federal Republic of Germany, Norway and Denmark appeared in the preceding issues of "Cardamom"*

*—Editor*

# THE NETHERLANDS

The Netherlands is a very small market for cardamom where Indonesian cardamom, a completely different type of produce from small cardamom is in vogue. Import statistics, however, group all types of cardamom together and indicate a mean import level of 36.4 tonnes per annum of which 0.8 tonnes of an average is Indonesian cardamom. Hence, the imports of true cardamom have never exceeded 16 tonnes. Details of imports of all types of cardamom are set out in Table —1.

Usage is mainly in the bakery industry and there is a very limited demand from the meat processing industry as part of spice mixes used in sausage manufacture. Almost all usage is industrial and there is virtually no cardamom sold in consumer outlets in the Netherlands. Indonesian cardamom, which forms the bulk of imports, is mainly used in Indonesian-style cooking which is popular in the Netherlands both among Indonesian immigrants and in restaurants among the indigenous Dutch population.

Distribution of cardamom is mainly through major spice grinders who buy from the specialised importers and sell to specialised wholesalers who supply the bakery or meat processing industries. Distribution of spices for consumer sale, which does not at present include cardamom, is carried out by large spice grinders who pack spices into jars and sachets and supply major retailers direct with a fully integrated range of spices and herbs in display racks. Spices are delivered and merchandised at branch level, though primary selling takes place at the head office of the store group, wholesaler or retailer buying group concerned.

Retailing in the Netherlands is highly concentrated into three or four major groups of stores which account for upwards on 90 per cent of sales, though smaller retailers can continue to operate competitively due to the existence of a highly developed cash-and-carry wholesaler system. Retail margins on spices vary between 20-40 per cent, while wholesale margins are about 30 per cent.

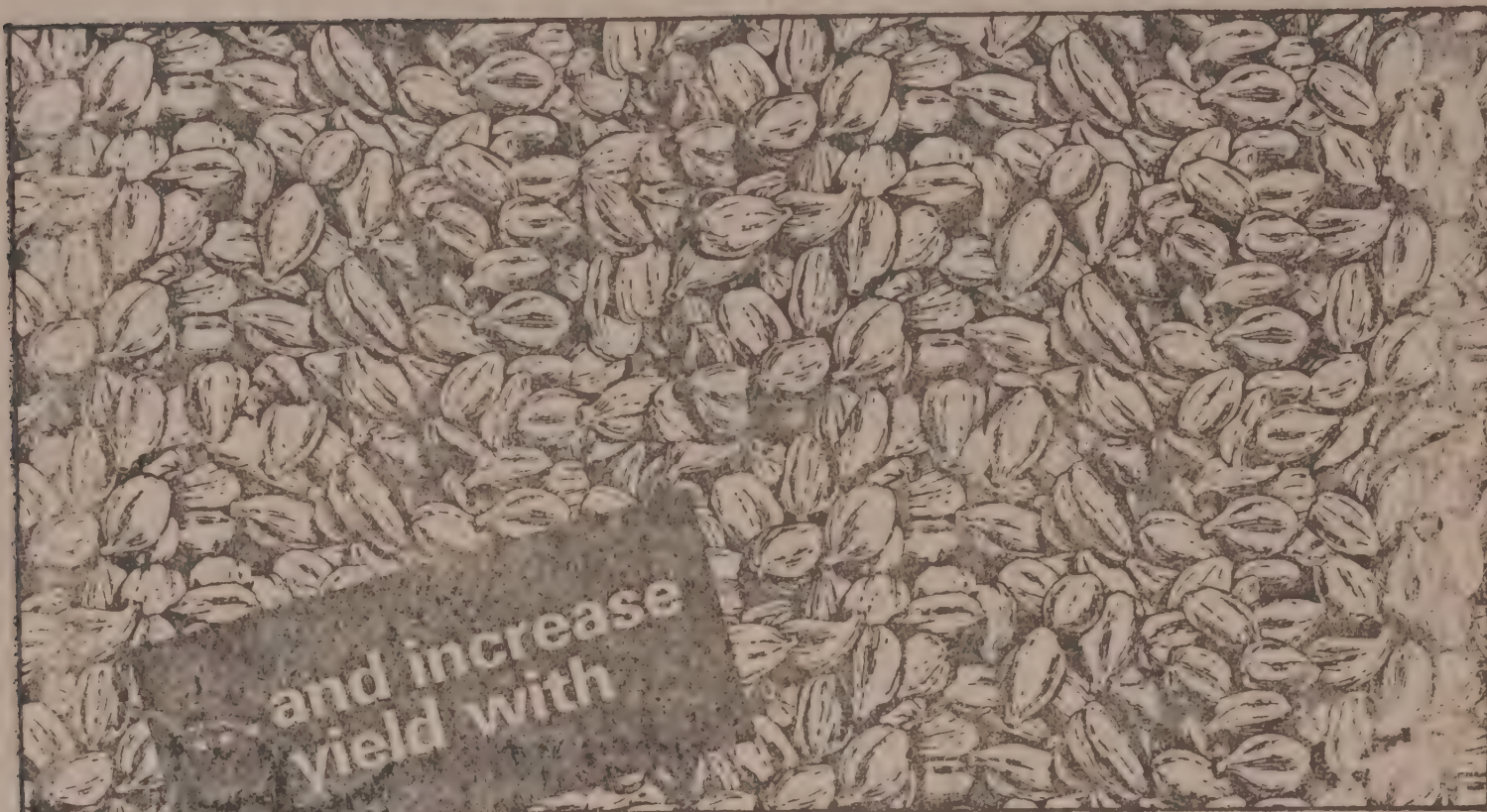
Cardamom is imported to the Netherlands by a small number of specialised importers who deal in a wide range of spices, herbs and flavouring products. These importers are mainly concentrated in Rotterdam. Importers buy on their own account, either direct from the country of origin or from a trading centre such as Hamburg or London. Cardamom is, however, a very small item of these importers and they deal in it only as a service to their spice grinder customers.

The qualities imported are very low — equivalent to Indian AGS 2 or AGN; these qualities are adequate in a market where all cardamom is ground before use. Main supply sources are Tanzania, West Germany and in recent years, India.

There is no import duty on cardamom entering the Netherlands. This is in line with other members of the EEC. The common external tariff of the EEC applies to all imports and for cardamom this tariff is at present nil. Value Added Tax is levied on cardamom



**Ensure adequate  
nutrient supply to your  
cardamom crop**



and increase  
yield with

**ARIES**

**AGROMIN**

**India's First Chelated Plant Nutrients**



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.

For details write to:  
The Agricultural Adviser



**ARIES AGRO-VET INDUSTRIES PVT. LTD.**  
P.O. Box 9417, Bombay 400 093

**Aries AGROMIN chelated plant nutrients increase crop yield economically**



Table 1

Annex

IMPORTS OF CARDAMOM INTO THE NETHERLANDS  
BY SOURCE  
1971-76

Year	Source	Quantity	Value	
		(M.T.)	(Rs. '000s)	(\$ '000s)
1971	India	3	149	20.6
	Indonesia	10	115	16.0
	Others	2	11	1.5
	TOTAL	15	275	38.1
1972	India	6	147	18.3
	Indonesia	36	343	42.8
	G. F. R.	Neg.	27	3.4
	TOTAL	42	517	64.5
1973	Indonesia	32	510	62.7
	G.F.R.	2	32	3.9
	U.K.	2	49	6.0
	TOTAL	36	591	72.6
1974	Singapore	3	126	15.6
	Indonesia	22	515	63.8
	Tanzania	4	139	17.2
	Others	1	25	3.1
	TOTAL	30	805	99.7
1975	India	8	392	43.9
	Indonesia	5	143	16.0
	Others	3	97	10.8
	TOTAL	16	632	70.7
1976	India	8	394	44.4
	G. F. R.	5	231	26.0
	Others	9	304	34.2
	TOTAL	22	929	104.6

SOURCE: National Foreign Trade Statistics, The Netherlands.

at the standard rate of 16 per cent. Trading is normally on a C & F basis at Rotterdam.

Prospects for increased cardamom consumption are limited. Total imports of Indian type cardamom are showing a slight increase in volume but the usage of

cardamom in the Netherlands at the domestic level is tiny and only if domestic consumption can be established will there be any significant upturn in volume. In the industrial sector, rising prices will prevent any major growth in volume.

SOME IMPORTERS OF  
CARDAMOM—  
THE NETHERLANDS

Catz International B. V.,  
Westersingel 96,  
P. O. Box 180,  
Rotterdam.

Multiplant B. V.,  
P. O. Box 87,  
Maarsse.

★

## The effects of NPK fertiliser on coconut

In an experiment conducted at Philippines, coconut palms fertilized with NK (400 gm. Ammonium Sulphate + 300 gm. of Potassium chloride per plant) were induced to flower in three years and seven months after transplanting. This is a thing to reckon with, especially the fact that typical tall palms under normal conditions usually come into bearing 6 to 7 and even as late as 10 years after transplanting. In other words, the period of immaturity of the tall palms had been reduced by almost one-half with the use of proper kind and amount of fertiliser.

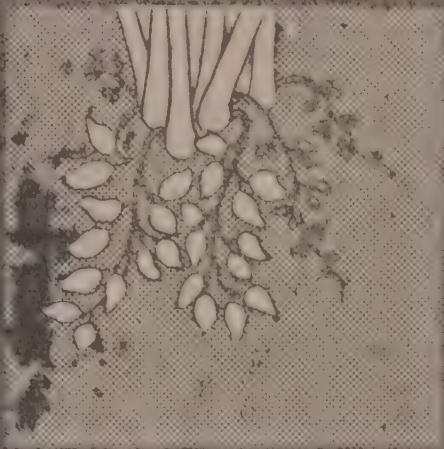
KCl-fertilized trees, when combined with either N or NP induced the trees to bear early and produce consistently more nuts per tree



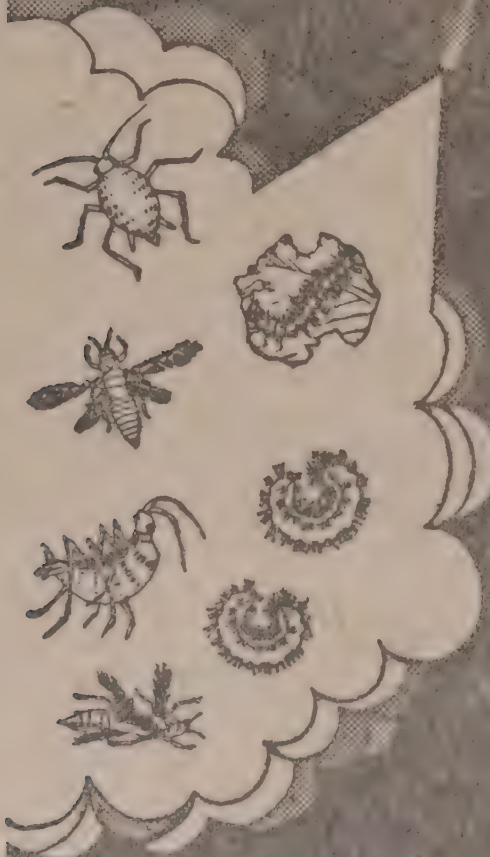
VOLTAS

# zolone

Insecticide-cum-Acaricide



puts extra power  
in your hands  
to protect your  
cardamom.



Harmless to bees,  
parasites and  
predators of crop pests

Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- \* Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- \* Has a local penetration action, so is also effective against sucking pests.
- \* Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- \* Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- \* Recommended as part of integrated pest control programmes.
- \* Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by

**VOLRHO LIMITED**

Secunderabad 500 003

Marketed by

**VOLTAS LIMITED**

Agro-Industrial Products Division

Bombay • Calcutta • Madras

New Delhi • Bangalore • Ahmedabad

Secunderabad • Cochin • Bhopal.





# INTEGRATED PEST CONTROL

Even before man took to agriculture he had faced pest problems. The battle between the rival worlds of insects and man is much older than the civilizations of Nile, Indus and Mesopotamia. But insects are better equipped to occupy the earth, having been on the earth for fifty million years, while the human race is but five thousand years old. Insects have consequently the advantage of the possession of the battle field and they have so persistently and so successfully held the ground that we can even now scarcely flatter ourselves that we have gained any very important advantage over them.

Since the earliest mention of pest problems in Vedic, Hebraic, Greek and Roman literature, the pest control measures and methods have undergone kaleidoscopic changes with the march of time.

Crude substances like oil, lime, cow dung and urine; vinegar, sulphur and bitumen were used in ancient times.

In modern times, prior to nineteen forties such inorganic chemicals as calcium arsenate, sodium fluosilicate, copper sulphate, mercury etc. were employed. Then late forties organic chemicals like the chlorinated hydrocarbon group led by DDT made their dramatic appearance. BHC, aldrin, dieldrin, endrin, heptachlor, chlor-

dane, toxaphene etc. along with the pioneer DDT gave spectacular results. But because of their persistent nature this group of chemicals left harmful residues on the crops. DDT does not decompose easily for years and passes in food chains from plants-animals-milk & meat-human beings. DDT may be passed on through mother's milk even to infants. Being fat-soluble it gets deposited in body fats where levels of DDT may go on rising due to repeated ingestion.

Then came the organophosphorous pesticides more potent but less persistent. Most of them have low LD 50 value i. e. high toxicity, and are very efficient if judged from the degree of kill obtained.

In 1962 Rachel Carson's book 'Silent Spring' focussed attention of the world to toxic hazards of pesticides. It was a scathing indictment of pesticides which were described by her as 'elixirs of death'. This set scientists thinking and research on alternatives to the use of pesticides got a fillip.

In India in sixties the emphasis was on working out 'schedules of control measures' for various crops and farmers were advised to spray their crops on a routine basis whether pest appeared or not. These were called 'Insu-

rance treatments'. Such recommendations have now become outdated. No prophylactic treatment is now advocated.

Seventies can be called the decade of 'integrated pest control'. Integrated pest control envisages integrating various methods of dealing with the pests into a whole pattern of pest management. Thus (A) biological control. (B) crop manipulation by rotation, sanitation, resistant varieties, change in date of planting etc. and (C) reduction of Pest-multiplication by sexual process-manipulation such as sterile male technique or by mechanical means such as hand picking are other methods of dealing with explosion in pest populations, which can be integrated with chemical control.

Numerous measures which do not involve the use of toxic chemicals or biotic agents practised in the past to alleviate injury by pests/ diseases need to be resurrected and popularised. Numerous other innovative measures of similar category recently advocated but not widely known also need to be brought to the notice of extension workers. Some of these measures collated by us are listed in the Annexure I and may be resorted to in the Integrated Pest control programme. Annexure II gives some examples of natural enemies of some Rice Pests.

The recent trend is fixing thresholds for various Pests. When the pest - population exceeds these economic threshold levels, it is supposed to be at 'economic injury level'. Thus pesticides are to be applied when pest situation is getting out of hand. Aim is not



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

**COIR PRODUCTS -** Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

**SECRETARY, COIR BOARD, COCHIN-682 016 (KERALA)**

**OR**

**VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:**

1. NEW DELHI:	16A, Asaf Ali Road	Tel: No. 271388
2. BOMBAY :	5, Stadium House, Churchgate	.. 295212
3. CALCUTTA :	22 Loudon Street.	.. 445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	.. 51216
5. MADRAS :	1/155, Mount Road	.. 85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	.. 35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	.. 25753
8. BHUBANESWAR :	No. 17, Janpath, Babujee Nagar.	.. 50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	.. 25505
10. PATNA :	Biscomaun Bhawan, West Lawn	
11. HYDERABAD:	5-2-322, Chapel Road, Hyderabad-500 001	.. 36276
12. JAMMU :	Gumat Bazar, Jammu Tawi	

**or**

**ANY OF OUR ACCREDITED DEALERS**



exterminate pests but to keep them below the level of mischief.

Exclusive dependence on and discriminate use of pesticides could be discouraged. Some of the drawbacks in the chemical method of control are: 1) killing natural parasites and predators along with pests. 2) development of resistant pests. 3) rapid resurgence of pest after initial control. 4) creation of new pest problems. 5) environmental pollution. 6) harmful residues on food crops.

Must pesticides be used, then- 1) when threshold levels of pests are reached. 2) use different products to reduce chances of resistance-development. 3) resort to selective spraying instead of blanket spraying where indicated. 4) use systemic and granular pesticides to protect parasites and predators where economically feasible. 5) adjust timing of sprays to coincide with the most vulnerable stage of pest. 6) avoid insurance treatments.

tead of blanket spraying where indicated. 4) use systemic and granular pesticides to protect parasites and predators where economically feasible. 5) adjust timing of sprays to coincide with the most vulnerable stage of pest. 6) avoid insurance treatments.

Misplaced animosity or even prejudice against the use of pesticides also needs to be guarded against. Where use of pesticides is justified one should not hesitate to seek their aid. Bigotry of any kind is unscientific.

Constant vigilance on pest situation by periodical scouting and seeking guidance from Pest surveillance warnings issued by Radio broadcasts and press releases may be profitably used for

reducing unnecessary applications of pesticides and for timing the application. Unnecessary escalation of cost of control can thus be avoided. Always take into account the economics of control depending upon the prevailing market situation in respect of price of produce and that of pesticide to be used. There is no wisdom in fighting the pest if the cost of control exceeds the value of produce saved.

It will be seen that Pest Management advisers have to learn new things, unlearn many things and relearn old things.

(Central Plant Protection Station, Ernakulam)

With best compliments

**K. J. PLANTATIONS**

QUILON - 691 004

Phone: Office: 2380, 2080      Resi: 2463, 3929

Telex: 0886 - 208      Telegram: 'SHANVILAS'

Coffee and Cardamom Estates at NELLIAMPATHY  
PALGHAT Dist.

Phone: Padagiri: 23



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.

- Area under Cardamom

225 Hects.

Pasuparai Estate  
Pasuparai P. O.  
Elappara

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

Registered Office: W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.



Modern agriculture has become very specialised industry. The farmer of today has to have knowledge of many things. In addition to mastering techniques of land preparation, sowing, irrigation etc. he has to use improved seeds, multi-nutrient fertilisers, improved agricultural implements, etc. He has also to use different chemicals like pesticides, weedicides, etc. in order to get maximum return from his land. The crop is prone to attack from insects and pests at all stages of its growth, right from the seed in the soil to the final stage of harvesting. There are many plant diseases, insects and pests which cause epidemics resulting in wholesale destruction of food crops or cash crops. The use of pesticides has achieved remarkable success in controlling insects. Their use has proved to be the most practical method of destroying insects.

The use of these chemicals in small quantities per unit of land is small but the return in terms of crop savings and better yields is tremendous. In fact, the failure to use a few grams of a pesticide can cause the loss of all gains expected from the use of fertilisers, seeds and water if the crop is attacked by a pest. The use of pesticides can, at a much lesser cost than by manual labour, be a safeguard against all soil nutrients being lost to the crop by way of weeds. International experts in plant protection have confirmed that food production with the use of pesticides can ensure full benefits from high-yielding varieties developed by agricultural scientists.

At one time the crop losses due to pests, diseases and weeds were

# PESTICIDES FOR FARMERS

assessed at 15 to 20 per cent. As a matter of fact it has to be more. Trials undertaken on various crops have shown that the preventable losses in high-yielding varieties exceeded 50 per cent. The nation's output of foodgrains is lost to the extent of 20 per cent as a result of plant diseases, weeds, parasites, etc. Rats alone destroy 10 per cent of the total production.

## RECOGNITION

The pesticides industry has registered a significant growth during the last 10 years. The consumption of pesticides has increased in value to about Rs. 55 crores in 1972-73 from Rs. 18 crores in 1964-65. The demand estimate for technical grade chemicals made by the Planning Commission Task Force for the year 1978-79 has been placed at 77,000 tonnes valued at Rs. 110 crores. Until the early sixties pesticides hardly ever figured as an important agricultural input in Government plans, although they were in use among planters and enlightened farmers. It was only during the Third Five Year plan that pesticides got their due recognition and for the first time, The Pesticides Association of India was called upon to submit a draft plan for the Fourth Five Year plan. This recognition brought large provisions for

Government funds and led the State Governments to expand their extension agencies on a very large scale.

In order to ensure proper development of agriculture, based on irrigation, consumption of highyielding varieties and other exotic seeds, fertilisers and pesticides have to be watched very carefully. The country has now built enough infrastructure to embark on increased agricultural production for feeding the population in the country in a better way and for creating a surplus for export.

The new budget provides relief to farmers by reducing excise duties on fertilisers and light diesel oil. Increased use of irrigation and fertilisers will mean increased use of pesticides. In order to encourage the use of pesticides, extension work in educating the farmer should include pesticides as an integral part of the total agricultural practice. In this education the farmer should be taught the hazards and safe use of pesticides. These are very potent chemicals and, therefore, they have to be used in a manner as not to cause harm. The farmer has to be trained in pest surveillance.

In order to encourage the use of pesticides, what is essential is that they should be available at



# CYTHION\*

## 5% DUST

### Malathion.

**Another addition to the Cyanamid range of pesticides.**

For extra savings: Water, Labour and Time. No need for mixing, hence save on labour and therefore time. Thus gain extra profits.

**CYTHION 5% DUST** is one more profitable deal your Cyanamid dealer can offer you; it has so many benefits:

**It is quick:** takes lesser time to dust than spraying over crops and livestock.

**It is economical:** controls a wide range of pests in cotton, paddy, cereals, vegetables and fruits.

Also, more acreage is covered in a day, than with spraying.

**It is relatively safe:** both for humans and animals.

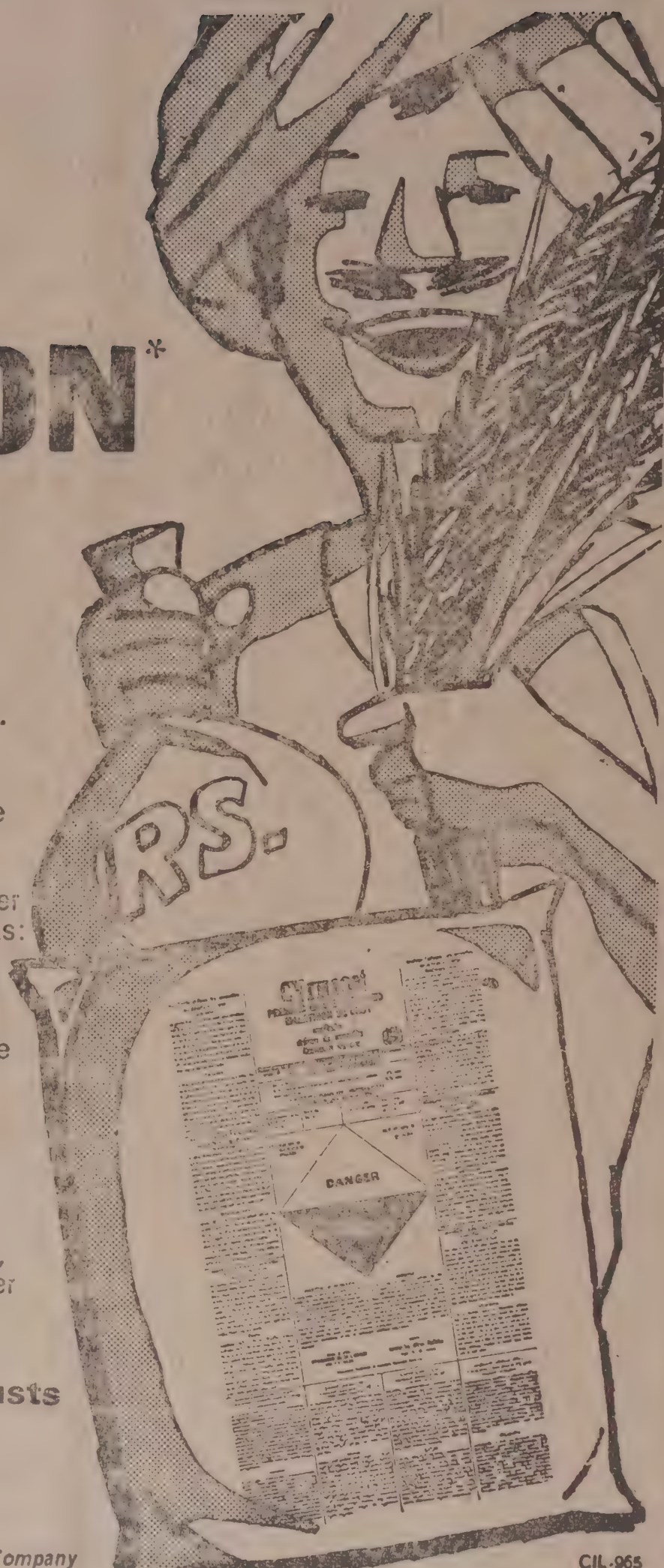
**It is efficacious:** protects plants, and animals against a large number of insect pests.

CYANAMID

**the name every farmer trusts**

Agricultural Division  
**CYANAMID INDIA LIMITED**  
P.O. Box 9109, Bombay 400025

\* Registered trademark of American Cyanamid Company  
Wayne, N.J., U.S.A.



CIL-965



tail outlets at the right time. The new scheme of Government to expand public distribution system and include many items will surely help the sale of pesticides. Similarly, banks and co-operatives should provide credit for agricultural inputs including pesticides. These steps mean that constraints limiting production of technical grade pesticides and installation of new capacities should be lifted. New products should be encouraged. The supply of indigenously manufactured technical pesticides should be ensured to those engaged in manufacturing formulations.

Pesticides is a general term and includes insecticides, acaricides, fungicides, rodenticides, molluscicides, plant growth regulator and weedicides. The basic manufacture of pesticides began in the country in 1952 with the setting up of a plant for the manufacture of benzene hexachloride (BHC) which was followed by DDT. India is the largest manufacturer of basic pesticidal chemicals in this part of the world excluding Japan.

The boost in the use of pesticides came with the introduction of exotic seeds in the mid-sixties. The high-yielding varieties of cereal crops increased agricultural production but their introduction also created new problems. The new varieties were more susceptible to pest attacks and fungal diseases. In order to get the full output from high-yielding varieties it became necessary to treat them with pesticides at all stages of their growth. The use of pesticides has resulted in higher

production of food grains, oil-seeds and fibre crops.

The number of pesticides required for public health programmes and for controlling household pests is very limited. But in regard to agriculture the number is large because crops are afflicted by over 200 major pests and about 100 plant diseases, hundreds of weeds and other pests. As a matter of fact the number of such pests will be very large. Over 900 pesticides are now available in the world market to combat known pests and the number of pesticides is constantly growing. □

## Dr. Henry Austin visits Cardamom Board

Dr. Henry Austin, Union State Minister for Commerce and Civil Supplies, who was a Member of the Cardamom Board representing the Lok Sabha before assuming charges as Union Minister visited the Head office of Cardamom Board, Ernakulam at 4 P. M. on 27th October 1979.

Sri. K.S. Skaria Jr., a Senior member of Cardamom Board, Sri. K. G. Nayar, Secretary, and staff of the Board received the Hon. Minister on his arrival at the office.

Dr. Austin spent about 20 minutes in the-office, and held discussions with Sri. Skaria Jr., Sri. K. G. Nair, officers and staff of the Board. The Hon. Minister said he had the privilege of being associated with the Board and was very happy on the valuable services being rendered by the organisation for the betterment of the industry especially in production and export fronts. Dr. Austin informed the staff that an amount of Rs. 25 lakhs has been sanctioned by the government for the construction of the Head Office building of the Board in Cochin. He also said that a foreign office of the Board would be started in Bahrain for collecting market intelligence and for the promotion of Indian Cardamom in Middle East countries.

The Union Minister was accompanied by Sri. P. C. Thomas Panicker, Controller of Imports and Exports and Sri. Elias P. Peter, Asst. Information Officer, Press information Bureau, Ernakulam.

## Board's display at Mysore horti show

The Board participated in the Horticultural show held at Curzon Park, Mysore from 23rd September to 2nd October 1979. Various panels depicting the growth of Coorg Cardamom Industry and Cardamom Plantation Industry in India as a whole, end-products of Cardamom etc. were displayed at the stall. Promotional sales of cardamom on a no-loss no-profit basis was also undertaken at the stall.

Smt. Parvathamma, W/o. Shri Sivappa, Minister for Horticulture, Karnataka State inaugurated the Horticultural Show.



# To millions around the globe



means garden fresh, hand picked and the best

## INDIAN CARDAMOM

We grow, deal in and export the best of  
Indian Cardamoms

 **Enterprises**

**Planters, dealers & exporters**

*Head Office:*

XXXVI/285-3 T. D. ROAD, COCHIN - 682 011

Telephone: 33589 & 38527 Cable: BLISS Telex: 885/472 BLIS IN

**Plantations:**

1. P. V. Plantations  
Mali - P.O.,  
Vandanmettu  
Phone: 41

2. P. V. Plantations  
Santhanpara - P.O.,  
Munnar.

**Purchase Office:**

P. B. No. 34, Door No. 109  
Ward No. 2 East Palace  
Bodinayakannur  
Madurai Dist.

Phone: 441 & 442  
Telex: 0447/210 BLIN IN  
Cable: BLISS

**Export Office:**

Vijaya House,  
Station Road  
Vikroly  
Bombay - 400 083

Phone: 582420  
Telex: 011/6485 SUJA IN



Cardamoms are available in attractive retail packets of  
50 gms, 100 gms, 250 gms, 500 gms, and 1000 gms. in  
different grades



## RODUCTION:

The final estimate of production for 1978—79 was placed at 4000 M. T. The preliminary estimate of production for 1979—80 is placed at 4000 M. T. The state-wise break up is as follows:-

State	Production M. T.
Kerala	3400
Tamilnadu	300
Karnataka	800
Total	4500

## DUCTION SALES & PRICES:

The state-wise sales and weighted average prices September '79, September '78 and August-September '79, August-September '78 are given below.

State	Sept. '79		Sept '78	
	Qty. (M. T.)	Av. price (Rs/kg)	Qty. (M.T.)	Av. price (Rs/kg)
Kerala	178	169.29	307	187.97
Tamilnadu	13	135.61	12	161.17
Karnataka	40	145.92	43	149.15
Total:	231	163.33	362	182.42

State	August-September, 79		August-September '78	
	Qty. (M.T.)	Av. price (Rs/kg)	Qty. (M.T.)	Av. price (Rs/kg)
Kerala	214	167.00	361	184.04
Tamilnadu	19	136.03	17	156.62
Karnataka	48	144.26	47	149.08
Total	281	161.01	425	179.11

Source: Based on the exports received from the Board's Licensed Auctioneers.

It is observed, from the above figures, that the sales during the present season is less than the previous season. This is mainly due to last crop coupled with the

# Monthly Statistical Abstract - September

restriction on movement of cardamom imported by exporters. However, more arrivals than the previous season is expected in the ensuing period of this season.

## EXPORTS:

Export of Cardamom during September '79 was 47 M.T worth

Rs. 7.96 million with a unit value of Rs. 170.96 per kg. as per the reports received from the Customs Authorities based on shipping bill passed and Cess / duty collected as against 64 M.T. valued at Rs. 12.13 million during September '79, realising the export unit value of Rs. 190.60 per kg.

According to reports received from the Customs Authorities the export of cardamom during the period April '79 to September '79 was 749 M.T. valued at Rs. 139.15 million with a unit value of Rs. 185.91 per kg. as against 691 M.T. valued at Rs 121.50 million with a unit value of Rs. 175.74 per kg. during the same period of the previous years. This indicates an increase of 8% in terms of quantity and about 15% in terms of earnings, compared to the previous year's performance.

As per the reports received from the exporters of Cardamom the exports of cardamom during April to September '79 was only 655 M. T. worth Rs. 120.24 million. The report for 94 M. T. are yet to be received from the exporters of Cardamom.

Rs. 7.96 million with a unit value of Rs. 170.96 per kg. as per the reports received from the Customs Authorities based on shipping bill passed and Cess / duty col-



With the best compliments from:-

## **M/s. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No.

With the best compliments from:-

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No. 1



# AUCTION ARRIVALS OF CARDAMOM

Centre	September 1979			September 1978			August-September 1979			August-September 1978		
	Qty. Sold (kgs)	Max. Price (Rs./kg.)	Av. price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)
<b>KERALA</b>												
Vandanmettu	107822	220.00	171.77	168655	230.00	191.96	112461	220.00	171.31	175131	230.00	190.94
Santhampara	46175	199.00	166.72	76848	230.10	184.83	64004	149.00	164.07	108259	230.10	178.04
Udumbanchola	340	178.50	167.87	21273	220.00	183.03	340	178.50	167.87	25660	220.00	178.82
Kallar	20944	181.20	162.05	30535	219.70	177.23	34656	181.20	158.11	42858	219.70	173.22
Cochin	—	—	—	1055	207.10	190.42	—	—	—	1055	207.10	190.42
Parathode	2224	190.90	171.00	8622	213.00	187.89	2224	190.90	171.00	8622	213.00	187.89
Total (Kerala)	177505	220.00	169.29	306988	230.10	187.97	213685	220.00	167.00	361585	230.10	184.04
<b>TAMILNADU</b>												
Pattiveeranpatty	8733	211.00	141.67	10636	220.00	161.22	11930	211.00	141.96	15380	220.00	156.15
Bodinayakanur	4151	170.00	122.86	1714	195.50	160.85	6870	170.00	126.20	1714	195.50	160.85
Total (Tamilnadu)	12884	211.00	135.61	12350	220.00	161.17	18800	211.00	136.03	17094	220.00	156.62
<b>KARNATAKA</b>												
Mercara	4435	173.00	153.41	7200	180.00	147.97	4758	173.00	152.31	8054	180.00	147.66
Mangalore	5083	176.00	147.26	1023	167.00	147.75	5083	176.00	147.26	1099	167.00	147.20
Saklespur	30513	233.00	144.69	33065	246.10	149.72	38165	233.00	143.03	35265	246.10	149.77
Sirsi	179	145.69	131.80	157	156.83	138.13	410	145.69	128.24	324	156.83	137.48
Mudigire	—	—	—	1884	169.20	145.40	—	—	—	1884	169.20	145.40
Total (Karnataka)	40210	233.00	145.92	43329	246.10	149.15	48416	233.00	144.26	46626	246.10	149.08
Grand Total (INDIA)	230599	233.00	163.33	362667	246.10	182.42	280901	233.00	161.01	425305	246.10	179.11

Source. Reports from Licensed Cardamom Auctioneers



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N. P. K.  
40 (38) 80 (40) 80



For Particulars

### T. STANES & COMPANY LIMITED

AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 33518

OR

**Our FACTORIES and Branches:**

- |                            |            |
|----------------------------|------------|
| 1. Avaniapuram (Madurai    | — 625 012) |
| 2. Ettumanoor (Kottayam    | — 686 631) |
| 3. Calicut (Malabar        | — 673 004) |
| 4. Kanimangalam (Trichur   | — 680 007) |
| 5. Mangalore (South Kanara | — 575 006) |
| 6. Palghat (Kerala         | — 678 001) |
| 7. Shimoga (Karnataka      | — 577 201) |





Indian Ambassador Sri. N.P. Alexander at the Cardamom Board's Stall. He is seen distributing cardamom biscuits. Sri K. R. Kurup, Publicity Officer is also seen.

# News and Notes

## Cardamom Board in Gothenburg, Sweden

The Cardamom Board participated in the International Consumer Goods Fair, Sweden from the 15th to 23rd of September 1979 which was held in the Svenska Massan Hall Gothenburg.

This is the first time the Board is participating in an International Fair in a Scandinavian country. The participation in Swedish Fair is based on the recommendations of the last market survey conducted in the Scandinavian countries. This survey had brought out that there is vast scope for increasing our export of cardamom to this region.

Gothenburg is one of the highly industrialised cities of Sweden located on the South Western coast of the country. This city is considered to be the Gate Way of

Sweden to the outside world, lies at the mouth of Gota river and is the seat of a large number of multi-national companies like S. K. F., Volvo etc. It is a city having 5 ship-building yards



Sri R. C. Jugran, First Secretary (Commercial) explaining the various exhibits at the Cardamom Board's Stall



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

**Gram: "PEEACEE"**

**Phone. 336**

**AUCTION CENTRE:**

**VANDANMETTU (Idukki Dist.)**

**Phone: 45**

**Head Office:**

**329 Main Road, Cumbum-626 516, Madurai Dist.**

**Branches:**

**VANDANMETTU (Idukki Dist.)**

**PAMPUPARA                   "**

**CHENKARA                   "**

**NARIYAMPARA           "**

**PARATHODE**

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



and connected to the outside world by air, rail and sea.

Gothenburg is a city of 7 million inhabitants and is responsible for one fifth of Swedish total industrial output. The city lies almost in the centre of the capital cities of Sweden, Denmark and Norway.

Cardamom Board entered the Scandinavian market by putting up its own pavilion in the Fair premises. Various grades of Indian Cardamom, Cardamom flavoured products like Elaichi Horlicks, Truebiscuits, Nutrine toffees Complian, Coffee cakes etc. were exhibited in the pavilion / distributed to the visitors. The Tea Board of India had also arranged preparation of cardamom flavoured tea in the Board's pavilion for free distribution to the visiting public. The Tourism Department of the Government of India contributed to make the Boards pavilion attractive by exhibiting their posters and distributing their literature.

Photographic panels on the production, export and various end-uses of Cardamom were displayed at the pavilion.

The Indian Ambassador Shri J. P. Alexander attended the inaugural ceremony and was present at Gothenburg during the subsequent days. "An India Day" was organised on 17th September at the Conference hall of Massan in which leading importers of Spices and manufacturers of Spices, bakery owners and dealers were special invitees. Sri R. C. Jugran, First Secretary (Commercial), Embassy of India, Stockholm met the Fair authorities and also the dealers of Spices and Cardamom

in the city. Shri K. R. Kurup, Publicity Officer attended the Fair representing Cardamom Board and Spices Export Promotion Council.

## Foliar diagnosis Laboratory at TNAU

A Foliar Diagnosis Laboratory has been set up in the department of Plant Physiology to diagnose the physiological and nutritional disorders in crop plants and suggest suitable remedial measures to the farming community.

## *femina* / Cardamom Board Unusual Kheers

# Contest

The Cardamom Board offers Rs. 2,000 worth of cardamoms as prizes to winners of our special cookery contest.

First prize: Cardamoms worth Rs. 300

Second prize: Cardamoms worth Rs. 200

Ten consolation prizes: Cardamoms worth Rs. 150 each.

To enter:

Send us a recipe for an unusual *kheer* using cardamoms as the main spice. Enclose the coupon below. Mark the envelope: Cardamom Board Contest

Last date: November 23, 1979.

For further details please see page 63, Femina October 23—Nov. 7, 1979.

## "Market survey for Cardamom"-Reprints Available

The Board has reprinted the report of the Market Survey for Cardamom in selected Middle East and West European countries. Those who have not received a copy of this report while purchasing 'Know Your Market For Cardamom', another publication of the Board, may write to the Secretary; Cardamom Board, Cochin-682 018 for a copy of this report.

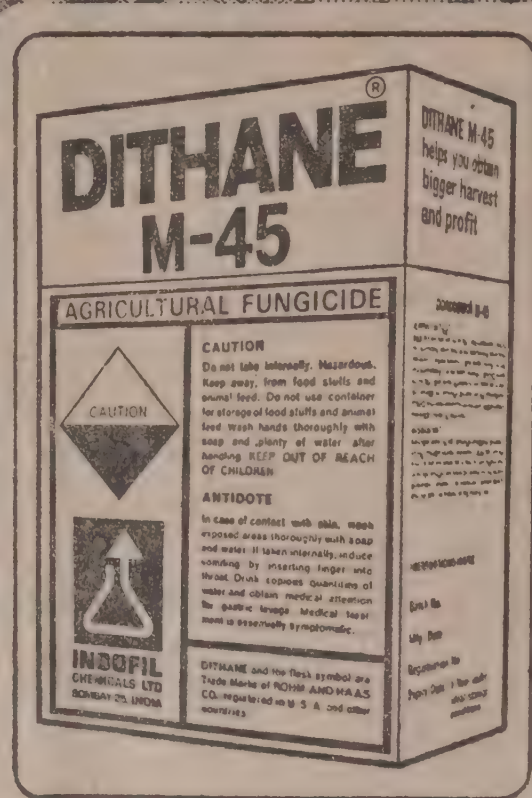


ഏലമയ്യ ഏലം ലാഭം നൽകും പൊന്നേലം!



Shilpi ICL 6/79 Mat.

ഏലത്തെ ബാധിക്കുന്ന രോഗങ്ങളെ  
ഫലപ്രദമായി തടയുന്നതിന്,  
ഉപയോഗിക്കുക ഡൈത്തേൻ എം-45.  
പുഷ്പമായ കമിരം/കീട നിവാരണത്തിന്,  
സ്പ്രേ ലായിനികളോടൊപ്പം ചേർത്തു  
തളിക്കുക ടൈറോൺ എഇ.



ഇൻഡോഫിൽ കെമിക്കൽസ് ലിമിറ്റഡ്  
ബോംബെ 400 025





## For good quality seedlings

Since 1967 the Board has been supplying good quality cardamom seedlings and supplying to growers at subsidised rates. 18 months old seedlings are supplied from the nurseries in Kerala and Malnadu at the rate of Rs. 1.25 per seedling and 10 months and 6 months old seedlings from Karnataka at the rate of 25 Ps. and 15 Ps. per seedling respectively.

The Board has 17 departmental nurseries in the cardamom growing tracts of Kerala, Tamil Nadu and Karnataka from where quality seedlings are supplied every year.

The demand for seedlings have increased considerably in recent years. To meet this increased demand, the Board is arranging quality seedlings from nurseries in the private sector recognised by the Board. There are 80 such certified nurseries in the cardamom tracts in Kerala, Tamil Nadu and Karnataka. Selected good quality seeds are supplied by the Board for raising certified nurseries by private parties and the maintainance is supervised by the field staff of the Board. The price for these seedlings are also fixed by the Board.

Besides these departmental nurseries and certified nurseries, quality seedlings are available from the South Wynad Irijan Co-operative Society, Puthiri, Calicut District and Pattappadi Tribal Co-operative Farming Society, Agali, Palghat District; two other institutions producing seedlings under the technical assistance of Cardamom Board.

Planters are advised to arrange purchase of seedlings only from the above sources. They are also advised to be cautious against advertisements appearing in newspapers and other publications issued by sources not recognised by cardamom Board about various varieties and availabilities of quality cardamom seedlings.

## Anuga - 1979

Cardamom Board participated in the Anuga 1979 (International Food Fair) Cologne, West Germany from the 5th to the 15th September 1979. This is the 2nd participation by the Board in the Anuga Fair, the first being in 1977. Anuga Food Fair — considered to be one of the biggest Food Fairs of the world — is organised once in two years.

Six Indian organisations participated in the Anuga 1979. The other organisations were Tea Board, Coffee Board, Cashew Export Promotion Council, Processed Foods Export Promotion Council and the Spices Export Promotion Council. The participation of all Indian organisations was co-ordinated by the Consulate General of India, Frankfurt.

An exclusive India pavilion was arranged at the Fair in which the participating firms put up separate stalls. The Spices Export Promotion Council and Cardamom Board had their combined stall in the India pavilion.

Various grades of cardamom, model cardamom plant, various end products of cardamom etc. were exhibited in the stall along with various Indian Spices. Attractive colour photographic panels on various aspects of cardamom industry and end-uses were also displayed in the stall. Cardamom flavoured toffees and biscuits

were distributed to the visitors. By arrangement with Tea Board and Coffee Board, cardamom flavoured tea and coffee were prepared and distributed to the visitors throughout the duration of the Fair.

Cardamom flavoured toffees, biscuits, coffee and tea were appreciated very much by the visitors and traders. A good number of trade enquires were received at the stall and they are being pursued. A few exporters of spices and cardamom present at the India pavilion could finalise some contracts with foreign importers.

## Children's Day Celebrations

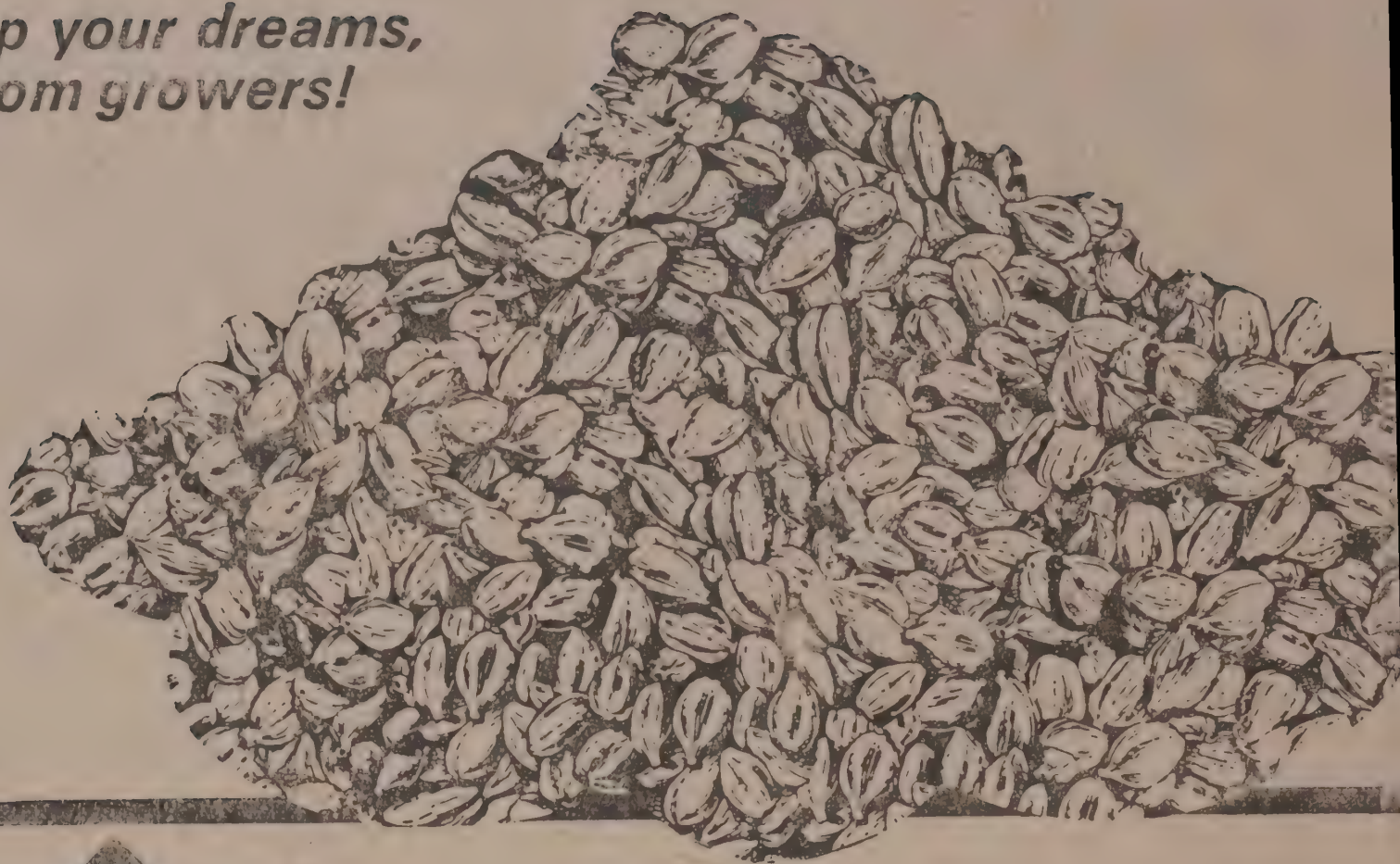
In connection with the celebrations of International Year of the Child, Cardamom Board Staff Club organised an Exhibition of Children's Paintings, Dolls, Toys and other Artwork in the Town Hall, Ernakulam on 14th November 1979. The exhibition of Children's Books was an added attraction.

Various competitions — Painting Essay, Elocution, Dance, Music, Fancy Dress etc. — were held and prizes distributed. The competitions were meant for children below 12 years residing within Greater Cochin.

The Cardamom Board put an exhibition to give the public a better insight into the working of the Board and also the myriad end-uses of cardamom such as cardamom toffees, biscuits, soft drinks, ice-creams, cakes etc. The manufacturers and distributors of biscuits, confectionary, soft drinks etc. used the occasion for their sales promotion/demonstration purposes.



*Spice up your dreams,  
cardamom growers!*



# Fertilisers

**— N, P and K mixed  
in the right proportions  
required by your cardamom crop**

Through years of experience and intensive research, Peirce Leslie knows best the specific NPK mixture your cardamom crop requires. We can help you make the right choice from a range of popular mixtures.



**Peirce Leslie India Limited**

**Seven decades of experience in fertiliser mixing**

Post Box 3747  
Race Course Road  
Coimbatore 641 018  
Phone: 22041-44  
Telex: 0855-255 PEIRCE CB

Zamin Uthukuli P.O.  
Pollachi 642 004  
Phone: 2372

C/o Asoka Mills  
Manachallur  
Trichy Dist.  
Phone: 82213

Old Court Road  
Calicut 673 001  
Phone: 72413

Jeppu Manure Works  
Jeppu  
Mangalore 575 001  
Phone: 24694



# TRADE ENQUIRIES RECEIVED BY CARDAMOM BOARD AT THE INTERNATIONAL CONSUMER GOODS FAIR, GOTHENBURG, SWEDEN

The following trade enquiries received by the Board during its participation at the International Consumer Goods Fair, Gothenburg, Sweden is published for the information of exporters.

Interested parties may write to the following with quotations for each grade (F.O.B. Value).

Name and address of the party	Products required	Sl. No.	Name and address of the party	Products required
(2)	(3)	(1)	(2)	(3)
A Ibarrahane, Afghan AB, Landsvagsgatan 10 B, S-413 04, Goteborg, Sweden. Tel: 031-13 06 90	Cardamom and other spices	7.	Surjit Singh, Trans World Trading, Box - 2058, 403 11, Gothenburg, Sweden.	Spices, pickles, cashewnuts in consumer packs
A. Ghose, Taj Mahal, Europapassagen Postgatan 49, P. B. No. 41521, 411 06, Goteborg, Sweden. Tel: 031/19 42 62, 48 57 47	Cardamom in consumer packs; other spices, pickles	8.	Goteborg Kex AB, Box - 73, 442 01, Kungälv, Sweden. Tel: 0303/10910	Cardamom in consumer packs
Satish Khanna, Khanna Konfektbutik, Linnegatan 2, Bangatan 21-23, 414 63, Goteborg, Sweden. Tel: 031-14 45 30, 12 78 94	Consumer packs of cardamom (whole seeds and powder), spices, spice mixes, pickles	9.	Lars-Olof Mattsson, B L., M.B.A., Managing Director, Nordfalks AB, P. O. B. - 63, S-431 21, Molndal, Sweden. Tel: 031-27 50 20 Tlx: 21613 NFSPICE-S	Small cardamom, large cardamom, masala tea, cardamom tea,
Dipen Das, Devi Agenturer, Ornehufvudsgatan - 3, 412 59, Gothenburg, Sweden.	Spices in consumer packs; cardamom of lower grades (whole and powder)	10.	Pierre Wallinder, Wallinder Trade Center, Fribergsgatan - 2, 412 60, Goteborg, Sweden. Tel: 031-18 43 32 Postgiro 50 34 22 - 8, Bankgiro 773-5038	Green cardamom
S. P. Puri, Scan Seas, Box - 50012, 104 05 - Stockholm, Sweden. Tel: 08 - 158100 Tlx: 'ATTN PURI. 17019 TELESK	Spices, pickles, rice in consumer packs	11.	Lars Axelsson, Managing Director, Anders Forsblad AB, Nordostpassagen - 29, Goteborg, Sweden. Tel: 031-124450 Tlx: 20794 CABLES: GLIMT	Cardamom and other spices
A. A. Goya, Goya's Enterprises, Box 22026, 417 21, Gothenburg, Sweden.	Cardamom and other spices in consumer packs			



# CULTIVATION OPERATION

DECEMBER

	South West Monsoon areas (Kerala-Tamilnadu)	North East Monsoon areas (Tamilnadu)	South West Monsoon areas (Karnataka)
Primary Nursery	<p>Third round digging formation of beds-collection and preparation of seed from selected plants.</p> <p>Sowing seeds in rows in the beds and spreading a thin layer of soil above.</p> <p>Mulching with potha grass, straw or other suitable material.</p> <p>Watering daily</p>	<p>Weeding the freshly formed beds.</p> <p>Collection of pandal materials.</p> <p>Uprooting of seedlings for transplanting to secondary beds continued.</p>	<p>Routine watering and phylactic plant protection measures-weeding.</p>
Secondary Nursery	<p>Routine watering and plant protection.</p> <p>Second round re-layering of beds and earthing up after North East Monsoon rains.</p>	<p>Uprooting of left over secondary seedlings for gap filling in field continued,</p> <p>Transplanting of primary seedlings to newly formed secondary beds and mulching continued.</p> <p>Watering.</p>	<p>Routine watering, plant protection and weeding.</p>
Starting of New Plantations	No work.	<p>Gap filling continued.</p> <p>2nd round weeding.</p> <p>Weeding, and mulching of last year's new planted areas.</p>	Routine maintenance.
Maintenance of Plantations	<p>Fourth round harvest.</p> <p>Thrips control.</p> <p>Third round weeding started.</p>	<p>Fourth round harvest.</p> <p>Thrips control.</p>	<p>Crop harvest, curing, storage or transport to market.</p> <p>Watch and ward.</p>

(1)	(2)	(3)	(1)	(2)	(3)
12. Leif Hallen, Hallen & Rydberg AB, Burggrevegatan - 23, S-411 03, Gothenburg, Sweden. Tel: 031-15 79 50; 15 79 85 TELEGRAMS: HAFOOD TELEX: 20931 HOME TEL: 0302-343 21		Small cardamom and large cardamom in consumer packs	14. Mrs. Lena Eisner, P. V. - 3087, 430 40, saro, Sweden.		Consumer packs of spices, cardamom tea, masala tea
13. Rune Ronnqvist, NORD-Automater AB, Scheelegatan - 4A, 416 60, Goteborg, Sweden.		Cashewnuts, peanuts	15. Vernon Mauris, E. W. C. Scandinavia, Gosta Ekmans Vag - 5, S-126 54, Hagersten, Sweden. Tel: 08-97 15 59		MARKETING CONSULTANT



# GANDHI SONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONoor,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHI SONS

'GANDHI BUILDING'  
232, Samuel Street  
BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



Phone: 23

Established in 1958

Office: ELAKAY

# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.

Kerala, India.



The best and foremost cardamom auctioning  
establishment in India.

**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Selection of all qualities of cardamom possible  
and any quantity of cardamom available.

We handle more than 50% of the cardamom produced in  
Kerala securing the highest prices.



# Cardamom



DECEMBER 1979



*With the best compliments of:*

**S. P. G. RAMASWAMY NADAR & SONS**

**VIRUDHUNAGAR (S. INDIA)**

**Leading Cardamom Exporters from India to all over World Markets**

**WINNERS**

**'CERTIFICATE OF MERIT'**

**FOR THEIR MERITORIOUS EXPORT PERFORMANCE**

**IN CARDAMOMS FOR THE YEAR 1971-72**

**FROM THE MINISTRY OF COMMERCE, GOVT. OF INDIA**

Cable: "CROWN"

3364 (Office)  
Phone: 3364A (Residence)  
3264 (Packing Centre)



## CARDAMOM BOARD

Chairman: S. G. SUNDARAM I. A. S.

Director: K. V. GEORGE

Secretary: K. G. NAYAR

### "CARDAMOM"

Readers are invited to share their experiences in the cardamom plantation industry through 'Cardamom'. Articles and reports on achievements, failures and success stories etc. related to all aspects of the plantation industry along with photographs if any, may be sent to us for consideration. Selected materials will be suitably paid for.

Chief Editor  
K. R. KURUP

Editor  
C. P. SALEEM

## CARDAMOM BOARD

P. B. No. 1909

NERJI ROAD, COCHIN - 682 018

GRAM : 'CARDAMOM'

33837, 33209

TELEX: 0885-480

# CARDAMOM

A Journal devoted to the promotion of  
Cardamom Industry in India

Vol. xi

DECEMBER 1979

No. x

### *in this issue*

Editor's Page	2
Producer Co-operation	3
—S. G. Sundaram I.A.S	
Large Cardamom in India	13
—John M. John & P. G. Mathew	
Peripheral Arab Markets for Cardamom	21
—N. Bharathan Pillai	
Use Slant Pandals in Cardamom Nurseries	27
—N. S. Parameswar	
Monthly Statistical Abstract-October	29
Auction Arrivals of Cardamom	31
Auction Prices of Sri Lanka Cardamom	32
News and Notes	33
Know Your Board Members	37
Cultivation Operations	39



## Summer Protection of Cardamom Plantations

Cardamom plants are adversely affected by the summer sun. This is one reason for the plants' coming up successful only under regulated shade. Most of our planters were not taking proper attention in maintaining a satisfactory canopy over cardamom plantations when cardamom was fetching only uneconomic prices. But now the conditions have been changed. Cardamom is giving a very economic return compared to any other plantation crop in India. International demand for Indian cardamom is also on the increase. With the increasing demand for Indian Cardamom, we have to make all efforts for increasing the productivity and production. Adoption of scientific methods for cardamom cultivation is a must for maximising yields in existing plantations. Maintenance of proper shade, preservation of necessary moisture/supply of optimum moisture etc in the plantation during summer months are some of the most important operations in scientific management of cardamom plantations.

During the period when cardamom was not fetching economic prices, some planters were trying to make easy money by illegally cutting valuable shade trees from the plantations. Such areas have become vacant and the cardamom plants were directly exposed to sunlight. This destroys most of the plants and the yield from such areas is reduced by 75% or even more during the following season. To avoid this malady, three ways viz. mulching in cardamom plantations for the preservation of soil moisture, provision of artificial irrigation during summer months and cultivation of quick growing shade trees are suggested.

As an immediate measure, for obtaining quick results, it is advised that planters may collect sufficient quantity of green leaves and litter or weeds to make a thick mulch over the ground around cardamom plants. In plantations where sufficient green leaf and mulch are not available, such mulching materials may have to be collected from near by wild growth.

Provision of moisture through artificial irrigation is a costly affair and not a practical proposition especially in areas where water is not available in plenty. Such a provision involves elaborate arrangements, which an ordinary small farmer may not be able to afford. Availability of electricity in remote areas of plantations, lack of perennial water sources etc. are other limiting factors in this context.

Cultivation of tall-growing shade trees is a cheaper alternative to tide over this situation. The expenditure involved in this method is practically negligible compared to the additional income derived from well-maintained plantations. Shade tree saplings are produced and distributed by Cardamom Board on a no-profit no-loss basis for the benefit of the planters. Cardamom planters requiring such shade tree saplings may contact their nearest Field Office of the Board. Any information/expert assistance regarding preservation of moisture in the plantation will also be available from the Board.

The need of the hour is to provide sufficient mulch to the plants where direct sunlight may cause damage during summer. For this purpose planters will have to act immediately, preferably before the end of the monsoon.



# PRODUCER CO-OPERATION

S. G. SUNDARAM

Shri S. G. Sundaram, Chairman, Cardamom Board was one of the three delegates invited from India to the International Symposium on the Export Development of Spices in London held in October 1979, organised by the Commonwealth Secretariat, London. Shri Sundaram presented a paper on "Producer Co-operation" in the Symposium. The full text of the paper is reproduced.

—EDITOR



Producer co-operation in the broadest sense of the term, could be taken to encompass joint measures for marketing, especially market promotion, establishment of organisation for compilation, exchange and dissemination of market information and statistical data, basic and applied research for increasing productivity, regulation of supplies and production including creation of international buffer stocks, and formal or informal agreements for price control.

## PRODUCTION

1. For increasing production and productivity.
2. For reducing production cost.
3. For undertaking research for evolving disease resistant and high yielding varieties.
4. Establishment of extension net work and exchange of information.
5. Training of technical, scientific and research personnel.
6. Conservation/up-keeping of natural environment.

## MARKETING

### (a) Market Promotion:

1. Maintenance and expansion of the existing markets.
2. Creation of new markets.

### (b) Market Intelligence:

1. Market research—undertaking market surveys—desk-research as well as on-the-spot surveys.
2. Collection, compilation, analysis and dissemination of all statistical data relating to production, supply, demand, prices, etc. — maintaining a Statistical Data Bank.

### (c) International Standardisation of quality and contract:

1. Adoption of universal standards of grades for various spices.
2. Evolving standard contract form.
3. Improvement in packaging.

### (d) Product Research:

1. Improved methods of processing.
2. Finding out new end-uses.
3. Diversification for producing oil and oleoresins.

### (e) Tariff and non-tariff barriers:

### (f) Price control, creation of buffer stocks:

The need for international co-operation has now become so vital as far as spices are concerned. The international trade in spices has expanded phenomenally in the later half of the seventies. Opportunities for further expansion are numerous and, it is quite welcome that the producing countries are now showing readiness to make use of such opportunities. To highlight the growth in the spice trade, I would cite examples of pepper and cardamom—two of the major spices. The average annual world exports of pepper during the period 1971-75 was of the order of 77,000 M. T. valued at U. S. \$ 100 millions. As per



# ACCOTHION\* 50% E.C.

THE VERSATILE INSECTICIDE FROM CYANAMID



## FOR BOUNTIFUL HARVESTS

**ACCOTHION 50% E.C. OFFERS BETTER PROTECTION TO YOUR FARM, ORCHARDS, & LIVESTOCK FROM RAVAGES OF PESTS**

ACCOTHION 50% E.C. is highly effective and widely recommended for use against many pests. Due to its inherent safety it is also used against animal pests.

### WIDE SPECTRUM FOR PESTS & CROPS

ACCOTHION 50% E.C. is extensively used in control of many hard-to-kill chewing and sucking pests like stemborers, hoppers, beetles, caterpillars, mealy bugs, aphids & others in a wide range of important crops like paddy, cotton, jowar, sugarcane, tea, coffee, oil seeds, vegetables, citrus, grapes & other fruit crops.

### SAFE

Due to its comparatively low mammalian toxicity it is safer compared to many conventional insecticides.

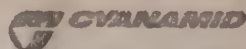
### CONVENIENT

One application controls simultaneous attack of various types of pests.

### ECONOMIC

Lasting protection against pests. Richer Harvests.

**USE ACCOTHION 50% E.C. FOR LONG-LASTING PROTECTION**



Cyanamid India Limited  
Agricultural Division  
P.O. B. 9109, Bombay 400 025

**Cyanamid the name every farmer trusts**

\* Registered Trademark of American Cyanamid Company, Wayne, New Jersey, U.S.A.

ACC01/1/77



nate by international organisations, the world export of pepper 1978 is around 1,20,000 M.T. valued at around U.S. \$ 228 millions exhibiting an increase of in quantum and doubling in value. As far as cardamom, one could observe that the total world export of cardamom during 1971-75 which was around 3500 M. T. valued at U.S. \$ 18 millions, has now increased upto 5000 M. T. valued at U.S. \$ 120 millions exhibiting an increase in the quantum and a ten fold increase in terms of value.

Only in the case of pepper an attempt had been made to form an international organisation to cover some of the areas mentioned earlier. Even if we look at other commodities very little experience is available to fall back upon. Whenever we talk of more than one country to come together for any specific purpose encounter problems of national sovereignty and self-interest. To attempt to do too many may lead to an ascent organisation to failure. Regulations to be enforced will be more honoured in breach than observance. It is better to have a system suited to the individual commodity as well as the countries involved rather than having a rigid model to be followed in toto.

Past experience elsewhere is a guide, producing countries usually concentrate on price control measures or production control. A positive co-operation in the field of increasing productivity is usually forgotten. As a matter of fact, the type of technology that is required for application in the field taking

into the factor that the major producing countries of spices or for that matter agricultural commodities are developing countries with a preponderance of small holdings, cannot be a mere adoption of a technology developed by an advanced country. Amongst the producing countries the problems are similar in nature requiring a profitable exchange of experience. Handling the small farmer sector for application of modern innovative technology would require a network of trained extension agents who can effectively communicate and thereby motivate this vital sector.

#### Need for national level organisation for promotion of commodities:

As a first step before any international organisation is envisaged what is needed is the creation of a nucleus agency in each of the producing countries to work as the arm of the international agency. The Pepper Community has been hampered in its effectiveness by the absence of active national level organisations in member countries to push through the developmental schemes. As you are aware, in some of the developing countries commodity organisations are set up for regulating, controlling and promoting respective commodities. I myself represent such a commodity organisation, viz., the Cardamom Board of India. It is understood that many countries are yet to establish such organisations. The inability to adjust to the rapid changes in the international market environment is the handicap experienced by such countries. The problems like market control, power to hold back in times of stress and

ability to make production adjustments, etc. could satisfactorily be solved only by a national level body that can work for the betterment of everybody from growers to exporters. Devoting greater resources internally is the basic need and only with such power of regulating and promoting, the individual country will be able to push its commodity outside. This point is pertinent when we take into consideration that where the commodity trade is in the private hands, the private exporters can act at best only according to their sense of understanding, looking at their immediate gain or loss. You will appreciate that without the exporters (producers-suppliers) joining themselves under one umbrella in their own country, there may not be any meaning in establishing any international co-operation. The producing countries should adopt all the techniques of regulation for adjusting with the international market environment.

To be frank, spices producing countries are not employing modern marketing methods in their international trade operations. Traditionally, it was a question of mere trading operations. Invariably the international centres for marketing lie mainly outside the producing countries and these are dominated by organised and sophisticated marketing sectors.

Within the producing countries the interests of growers, the domestic consumers, the processors and exporters are inter-linked. Of these, the growers especially the small and marginal farmers are at a disadvantage not only because of the economic handicaps but also because they are the most scattered and are



# **PAMPUPARA AUCTION COMPANY**

**Cardamom Auctioneers & Commission Agents**

Gram: " PEEACEE "

Phone . 3 3 6

*AUCTION CENTRE:*

**VANDANMETTU (Idukki Dist.)**

Phone: 45

*Head Office:*

**329 Main Road, Cumbum-626 516, Madurai Dist.**

*Branches:*

VANDANMETTU (Idukki Dist.)

PAMPUPARA                   "

CHENKARA                   "

NARIYAMPARA               "

PARATHODE

**A UNIQUE CARDAMOM AUCTIONEERING HOUSE IN INDIA FOR  
ALL GRADES OF EXPORT QUALITY CARDAMOM**



thoroughly disorganised. Yet they constitute the prime factor in the exports of spice commodities as they are larger in number and completely dependent on income from small farms. In most countries such small holdings are at a disorganised stage due to low level of technology, lack of market information and prevalence of primitive marketing systems. So, I feel that first of all the growers should be encouraged to join under one roof and such a forum will enable the country to talk on further aspects of international co-operation with other producing countries on a sound basis. Through such organised joint moves the growers and thereby the industry and the nation could benefit in (1) increasing foreign exchange earnings, (2) application of better know-how for improving productivity, (3) upgrading of local skills, (4) increasing sophistication of exports, (5) contributing to solving employment problems and (6) improving channel for Government-industry, communication etc. Again, this Agency could contribute in solving product problems, marketing problems and transport problems.

I have indicated briefly the items of activities to be undertaken by such a national level organisation in Annexure-1.

I wish every producing country of spices attempt in establishing such commodity organisations that could later have dialogue with other producing countries for the common interest and mutual benefit and thereby achieve progress.

## Producer (producing countries) Co-operation

### Why producer co-operation?

1. Spices being agricultural commodities are subjected to wide annual variations due to climatic conditions, attack of pests and diseases, natural calamities, internal disturbances etc.
2. Preponderance of small holdings leads to a low level of productivity — the small farmers are the least organised and remain widely scattered.
3. Producing countries are mostly developing countries and are poor and lack information on production, supply, research, etc.
4. The bargaining power of the producing countries who are less developed and poor is weak as the buyers are organised and are from rich and sophisticated countries.
5. Higher inventories of production cannot be kept back due to financial constraints.
6. Lack of information on all aspects of production to marketing.

Unlike in the past, the developing countries are now realising their strength in the supply of raw materials to advance nations and the need for co-operation in order to avoid wasteful and unhealthy competition among themselves. OPEC (Organisation of Petroleum Exporting Countries) had already demonstrated its

effectiveness in enforcing a drastic increase in the world price of its major export commodity, oil and thereby turning the terms of trade in its favour. The idea behind joining of the producing countries of a particular commodity is not merely for avoiding competition in international market but also for undertaking joint activities for the development of the commodity within the respective countries. Such co-operation can be organised under an international agency. In this context, I should point out that the lesson for the developing countries should be that if they wish to secure any substantive changes in the present economic framework they must strive to forge genuine and not just formal unity among themselves. For this purpose, they ought to be engaged more actively as well as seriously in dialogue among themselves.

I have indicated briefly the areas for co-operation among the producing supplier countries in Annexure - II.

Increasing productivity is the best method of ensuring remunerative returns to the small farmers. Research on different aspects of production including control of diseases affecting the plants, development of new and high yielding varieties, etc. is in progress in different producing countries at different levels. I do not think, there is much co-ordination among the producing countries on these aspects at present. No doubt, the co-ordination of such research activities undertaken by the different countries on the same



**FOR BUMPER CARDAMOM YIELD  
AND BETTER QUALITY, USE**

# **FACTAMFOS 16:20**

**The only complex  
fertiliser with  
60 kg Ammonium  
Sulphate in every  
100 kg.**

**Factamfos 16:20  
gives the essential  
Nitrogen for crop  
growth in  
Ammonical form.  
It remains in the  
soil without loss.  
The plants can  
absorb it quickly.**

**The entire  
phosphorus in  
Factamfos 16:20 is  
water soluble and  
results in better  
yield.**



**FACT'S free expert  
agronomic advice  
and soil testing  
services are  
available to  
planters**



**THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED,**  
(A Govt. of India Enterprise) Udyogamandal 683501, Cochin  
Area Office: Old Sreekandeswaram Road, Trivandrum 695 001

**For all crops, all soils FACT Fertilisers.**



modity can yield better results if the research information available is pooled together and for specific studies made. Lack of information on the production programme and policies of producing countries may lead one country to wrong conclusions on the international demand and supply situation. Early, lack of information on the market environment in the present consuming countries may form a handicap in the short-oriented planning of each producing country. Exchange of information among the producing countries will profitably enable all of them to do better in international trading of the commodity.

It may not be advisable or perhaps practicable to undertake promotional activities on agricultural raw materials in international markets by a single producing country alone, considering the financial, technical and other limitations. Obviously, to undertake promotional measures advanced and sophisticated as in the United States, Canada, Europe and Japan large resources are required. Again, even undertaking such promotional measures that country is not assured of its due share as obviously other suppliers can also take advantage. It is in this context we have to consider the possibility of pooling funds and resources by all the producing countries for undertaking joint promotion of generic nature for the benefit of all. Needless to say that the resources will be more and consequently the results are certain to be successful. Such joint promotional activities should concentrate

not only for finding and exploring new markets but also for maintaining and expanding the existing and traditional markets. The joint council can also focus its attention on stimulating and co-ordinating research activities for finding out and developing new end-uses for the individual spices. Again, no doubt that such a council can bargain better with developed/rich countries in international forums in the matter of further relaxation of tariff and non-tariff barriers and for getting other obstacles to trade removed. The necessity for adopting international standards for commodities for effectively marketing in the international markets need not be over-emphasised. In separate sessions of this symposium more detailed approach in the matter of evolving international standards for different spice items have been discussed. Still I would like to mention that the joint council of the producing-cum-supplying countries could co-ordinate to prescribe some specifications for international standards (including standard contracts) so as to facilitate efficient international marketing.

#### Need for Buffer Stocks

Almost all the spices are tropical in nature and the fluctuations in the supply position which is basically and mostly dependent on weather conditions, are seen more or less in the same pattern in all the producing countries. Hence, often there are years of bumper production followed by years of average crop. These fluctuations in supply in turn contribute to wider price fluctuations resulting in instability in income and thereby loss of

confidence for re-investment by the growers. In several forums often it is heard that the prices should be stabilised at a particular level which should be remunerative to the producers/suppliers and at the same time should not hamper the consumption. Dumping all the production of a bumper season at lower rates to markets and raising the prices during the short supply period are often seen. No one will disagree with me, if I say this sort of trading should be discouraged as early as possible. A joint council of the producing countries can think of building under its aegis buffer stocks in years of bumper crop and releasing it uniformly and steadily later. A question may be asked whether all spices could be kept for a long time and will the quality not be deteriorated during the storage. I should warn this aspect should be taken into consideration while considering the question of building up buffer stocks.

#### Statistical data bank

The imperative need for facts and figures and information for better planning of the development of commodities nationally or internationally need not be elaborately spelt out in forums like this. Lack of essential data as I have pointed out earlier may lead only to darkness in the matter of decision making in framing the marketing policies.

The community of the producing countries can bestow better attention for the collection, compilation and analysis of all data relating to supply, demand, prices, market environment etc. which could be used by the member countries for the benefit of all.



# HOW TO GET OVER 50% INCREASE IN CARDAMOM YIELD WITHOUT DEPENDING ON RAIN... GET A PREMIER SPRINKLER SYSTEM

PREMIER OFFERS MORE :

- 1 ECONOMICAL CAPITAL COST.
- 2 STRONG, RELIABLE EQUIPMENT.
- 3 **FREE** TOTAL IRRIGATION PLAN SURVEY TO COMMISSIONING

Specialised and efficient equipment engineered at the lowest capital cost for your plantation.

## SPRINKLERS

Spray water overhead gently and evenly, like rain. Regulated supply prevents water wastage. Creates humid atmosphere necessary for cardamom cultivation.

## COUPLING VALVES

New and exclusive to Premier Systems. Sprinklers are moved and reconnected easily and quickly. Less labour. More irrigation.

## PIPELINES

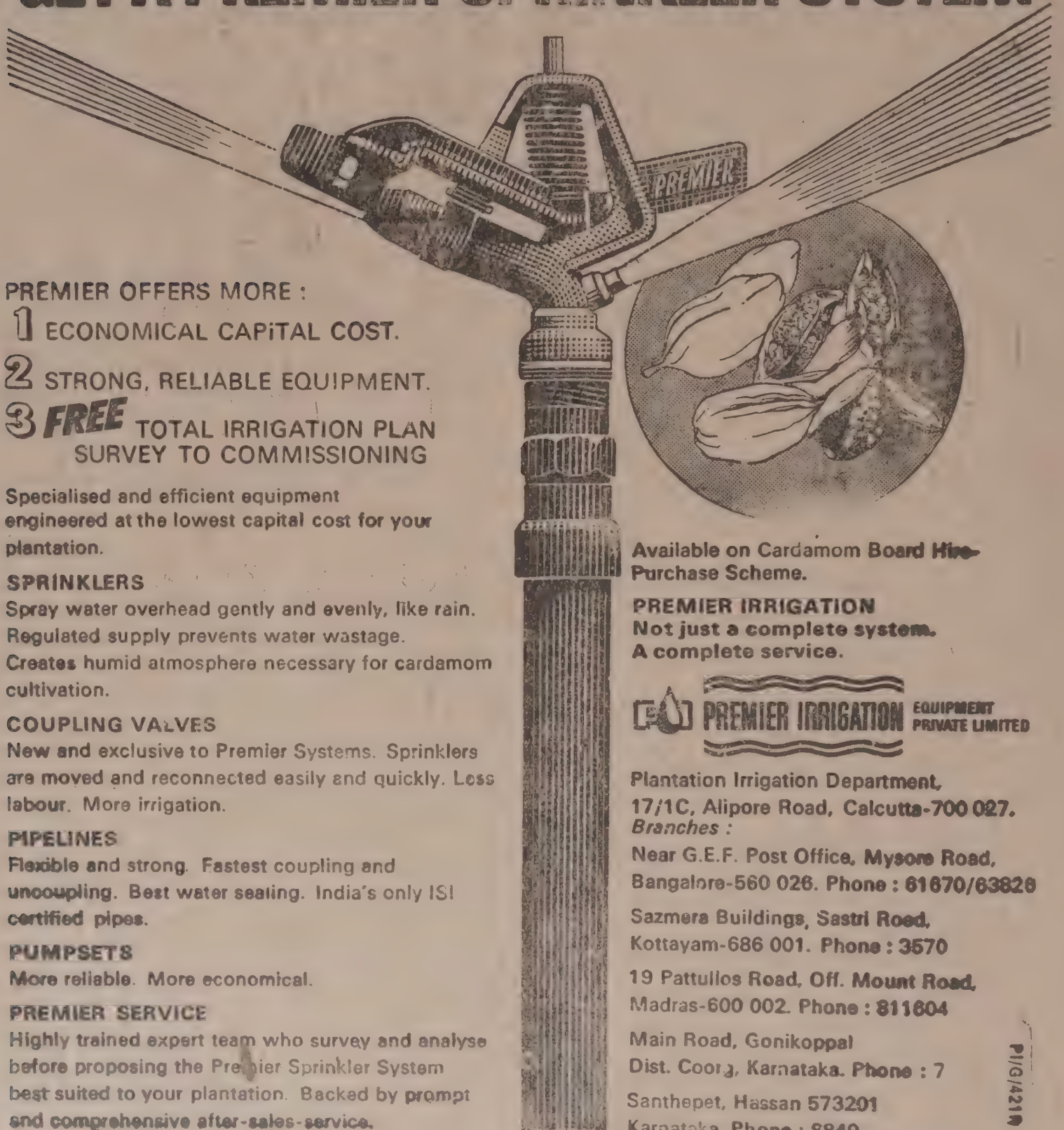
Flexible and strong. Fastest coupling and uncoupling. Best water sealing. India's only ISI certified pipes.

## PUMPSETS

More reliable. More economical.

## PREMIER SERVICE

Highly trained expert team who survey and analyse before proposing the Premier Sprinkler System best suited to your plantation. Backed by prompt and comprehensive after-sales-service.



Available on Cardamom Board Hire-Purchase Scheme.

**PREMIER IRRIGATION**  
Not just a complete system.  
A complete service.



**PREMIER IRRIGATION**

EQUIPMENT  
PRIVATE LIMITED

Plantation Irrigation Department,  
17/1C, Alipore Road, Calcutta-700 027.  
Branches :

Near G.E.F. Post Office, Mysore Road,  
Bangalore-560 026. Phone : 61670/63828

Sazmera Buildings, Sastri Road,  
Kottayam-686 001. Phone : 3570

19 Pattullos Road, Off. Mount Road,  
Madras-600 002. Phone : 811604

Main Road, Gonikoppal  
Dist. Coorg, Karnataka. Phone : 7

Santhepet, Hassan 573201  
Karnataka. Phone : 8840



Conclusion:

Existing national and international organisations are focussing their attention mainly on marketing. Why? Why are they not extending their activities towards the production sector also? The first step should be to bring up the production level and productivity and making the prices attractive to the consumers and at the same time remunerative to the growers. Why the notion that the demand for spice is inelastic? This has to be seriously questioned. We should not work for 2% or 5% or 10% growth rate. With sustained efforts, we should be able to either double or treble the production and supply as well as demand. The consumption behaviour as far as spices are concerned, is not entirely inelastic. This should be proved by making spices available at attractive rates through bold, imaginative and innovative promotional measures.

I would like to conclude my paper by throwing it open for discussion as to whether we should have an International Spices Promotion Agency covering all spices or should we think of separate such agencies for major individual items of spices. It should be pointed out in this context that almost all the major producing suppliers are having more than three or more spices to offer to the international markets. Also the consuming countries do take more than three or more spices for their use. So, I feel it may be better to have a single international agency for all the spices. If, however, separate agencies are required for major spices like pepper, cardamom, etc., that can also be thought of.

Again, I should warn that although what I have presented before you can be put into practice, I am doubtful whether certain areas like production control, price control, building buffer stocks, etc. could be satisfactorily attended to by a single international agency unless it has got a sound footing and backing.

Complex problems invariably would need simple solutions. Simple solutions have the hallmark of being successful. Given the faith and will to do something for the small man at the farm level, it may not be too difficult to achieve our objective of growth by steadily increasing productivity.

#### Annexure-1

Outline of activities by a national level organisation for development of a spice commodity

1. Infusion of confidence in the minds of the growers/producers for bestowing more attention on production.
2. Improving the system of internal marketing by suitable methods so as to ensure remunerative returns to the growers and smooth running of domestic trading.
3. Motivating growers for re-investment.
4. Collection of all statistical data, national and international for facilitating proper planning and timely dissemination of such data to the growers, processors and exporters.
5. Extension and advisory services for educating the growers

about improved cultivation aspects and rendering all assistance required in increasing productivity.

6. Undertaking campaigns for disease control in the plantations and for educating proper marketing techniques.
7. Arranging quicker and effective communication facilities in the producing centres as well as terminal markets.
8. Arranging liberal credit facilities through financial institutions.
9. Export advisory services.
10. Production and supply of quality seedlings at reasonable prices enabling the growers to produce more.
11. Improving the labour conditions which is a major factor determining the productivity.
12. Undertaking export promotion activities.
13. Research for increasing productivity.
14. Diversification of products and finding new end-uses improving processing methods.

#### Annexure-II

Areas of activities for co-operative joint action by producing supplier countries

1. To co-ordinate and stimulate research on technical and economic aspects of production, including research on
- (Continued on page 15)



# SPICES AGENCIES

## Cardamom Exporters

BODINAYAKANUR (SOUTH INDIA)

Cable: 'SPICES'

Post Box No. 18

Phone No. Office: 336

Residence: 337

♦

*Leading cardamom exporters from India  
to all over world markets*

### Winners of: "CERTIFICATE OF MERIT"

for their Meritorious Export Performance in Cardamoms for the year 1973-74 from the Ministry of Commerce, Govt. of India and also from the Spices Export Promotion Council, Cochin and shield for 1975-76 from the Spices Export Promotion Council, Cochin.

♦

Special Grades of Cardamoms for Overseas Markets:

"HANDPICKED" "EXTRA BOLD" "BOLD"

ARE WELL RENOWNED AND DELICIOUS IN ALL ARABIAN COUNTRIES

For Inland Markets: "VENUS" "RAM" "TULSI"

Exporters of all Standard Agmark Grades of Green Cardamoms and Cardamom Seeds to all countries in Europe, U. S. S. R. & C.

"QUALITY GUARANTEED AND CONSUMERS SATISFIED"  
IS THE MOTTO OF THIS FIRM OF WORLD REPUTE.



# LARGE CARDAMOM IN INDIA

JOHN M. JOHN\* P. G. MATHEW\*\*

Large cardamom is an important commercial crop cultivated in the Sub-Himalayan regions of Sikkim, West Bengal and Assam. It is estimated that an area of about 1,204 Ha. in Sikkim and 1,620 Ha. in West Bengal are under large cardamom with an average annual production of 2,300 and 440 M.T. respectively. The area and production of cardamom in Assam are only negligible. In Sikkim, cardamom is cultivated in all the four districts. In Darjeeling District of West Bengal, it is grown in 8 out of the 10 Community Development blocks, Bijanbari block having the maximum area of 444 Ha. followed by Sukhiakhri block with 368 Ha. The district wise details of area and production of large cardamom in Sikkim and West Bengal are furnished in Table 'A'.



Shri K. V. George, Director, Cardamom Board, talking to a group of planters during his recent visit to the large cardamom areas of Sikkim

holdings are below one ha., 7% between one and two ha. and 3% above 2 ha. Thus small and marginal growers predominate in

order Scitamineae and Family Zingiberaceae. It is commonly known as large cardamom or beda elachi. The plant characters are similar to that of small cardamom. Flowering starts in April-May and continues upto June-July and it takes 4 to 6 months for full maturity. The fruit is a capsule, trilobular, dark pink in colour, each containing 40-50 dark brown to black seeds. The seeds contain about 2.8% cardamom oil. The plant starts yielding from its third year of planting in the field.

Table 'A'  
DISTRICT WISE AREA AND PRODUCTION

State	District	Area (Ha)	Production (MT)
Sikkim*	North	6853.23	1490.00
	West	1926.29	335.00
	South	1568.96	325.00
	East	855.52	150.00
West Bengal **	Darjeeling	1620.00	440.00
TOTAL		12824.00	2740.00

Source: \*Agriculture Census 1979-unpublished.

\*\*Agriculture Department, West Bengal

In Sikkim state about 20% of the total holdings are below one ha., 25% between one and two ha., 27% between two and four ha. and 28% above 4 ha. In West Bengal about 90% of the this plantation crop in both the States.

## THE PLANT:

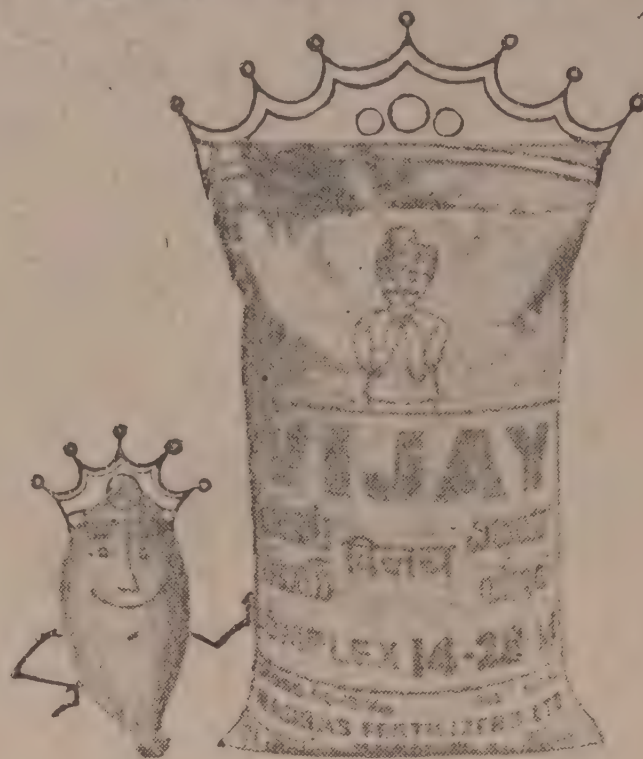
AMMOMUM SUBULATUM (Roxburgh) belongs to the natural

## Types:

Based on the plant size, leaf characteristics and size of the fruits, three distinct types are recognised viz. Ramshai, Golshai and Sawaney. As the varieties are highly interfertile wide variability is noticed among the various types.



# The king of spices deserves the king of fertilizers



Cardamom, the king of spices, needs the balanced nourishment of N P and K to grow into a healthy crop and bring more profits to you.

Since Cardamom is a phosphorous loving crop, the Cardamom Board recommends application of 12-24-12 kg of N P K for every acre.

What better balanced nourishment can you offer to Cardamom than the king of fertilizers—Vijay—with its special blend 14-28-14.

The phosphorous in Vijay 14-28-14 is water soluble, which means it's easily available to your crop. This easily available phosphorous develops the root system and strengthens the plant to withstand drought conditions.

Vijay complex fertilizers and Vijay Urea are made by Madras Fertilizers Limited—one of the biggest and most modern factories in Asia.



**Madras Fertilizers Limited** Manali, Madras 600 068



mshai: This is characteris-  
robust growth, leafy shoot  
g upto a height of 2.5m.  
rge number of shoots. The  
are thin, and long. The  
are smaller than the other  
es. They are better adapted  
tudes of not less than 1500  
above MSL. The fruits

Continued from the page 11)  
sease affecting the plants,  
search on development of  
sease-resistant and high-  
elding varieties.

o develop programmes fo-  
creasing consumption in  
additional and new markets,  
cluding programmes of co-  
peration in promotion activi-  
ties, to stimulate and co-  
ordinate research on new  
es of individual commodi-  
es.

o further joint action for  
e relaxation of tariff and  
on-tariff barriers and for  
e removal of other obsta-  
es to trade.

o co-ordinate and specify  
standards of quality so as to  
facilitate international mar-  
keting.

o keep under constant re-  
w developments in the  
upply, demand and prices.

o improve statistical and  
her information on produc-  
on, consumption, trade and  
rices including techniques  
f production forecasting.

o undertake such other acti-  
ties as may be deemed de-  
rable in the interests of  
e members of the commu-  
ity. □

will be ready for harvest by Octo-  
ber-November and fetches only  
relatively lower price due to small  
size and inferior quality of the  
capsule. It is also susceptible  
to virus disease called 'Furkey'

2. Golshai: The plants are shorter  
in size with less number of  
shoots. The leaves are short,  
broad and upright. The capsules  
are round, bold and big in size.  
This type also comes into harvest  
in the months of October-Novem-  
ber. It fetches relatively higher  
unit price in the market due to  
its bold and uniform size.

3. Sawaney: This is character-  
ised by tall leafy stem with shorter  
and wider leaves. The fruits  
are bold in size. It is an early  
crop and ready for harvest by  
August-September. This variety  
is considered to be more tolerant  
to Furkey disease and better  
adapted to lower elevations.

#### Climate & Environmental Factors:

Large cardamom is a native of  
Eastern Himalayan regions where  
it is found growing wild. The  
altitudinal range for economic  
cultivation of this crop appears  
to be 500-1850 metres above  
MSL. The plant grows and estab-  
lishes well under humid condi-  
tions within a temperature range  
of 10 to 33°C and well distribu-  
ted annual rain fall of 200-350  
cms. Environmental conditions  
available under the canopy of  
forest trees are also required for  
the successful growth and yield  
of the plant. The crop is highly  
sensitive to frost and heavy  
drought. Although it requires  
continuous soil moisture, water  
logging and excessive soil mois-  
ture are detrimental for its grow-  
th and development. As in the  
case of other crops, land with

south-western aspect is not  
found to be very suitable on  
account of its long period of  
exposure to direct sunlight. Well  
drained soils of the evergreen  
forests rich in organic matter are  
considered most suitable for the  
cultivation of large cardamom.

#### Propagation:

As in the case of small carda-  
mom, large cardamom can also  
be propagated both vegetatively,  
as well as by seeds. But vege-  
tative propagation is the common  
practice as there is no agency  
engaged in the production and  
supply of seedlings. Rhizomes  
from large clumps of grown up  
plants are taken out, separated  
into small clumps, each consist-  
ing of at least one old and one  
young shoot and used for plan-  
ting in a pit. This method of  
propagation is adopted largely  
by the growers mainly on acco-  
unt of availability of planting  
materials at a very cheap rate  
from neglected plantations and  
due to the fact that it comes into  
yield earlier than seedlings. But  
this method has several  
disadvantages like loss of vigour  
of the plants resulting in poor  
yield, large scale spread of virus  
diseases like Furkey and Chirkey.  
Having realised its disadvanta-  
ges, this method is gradually lo-  
sing its popularity in Darjeeling  
district where the Department of  
Agriculture arranges production  
and supply of seedlings on a  
limited scale every year.

Seeds collected from selected  
healthy mother plants having  
desirable characters like high  
yield, tolerance to pests and dis-  
eases etc. are used for raising  
the seedlings. October-November  
is the sowing period. As in the



VOLTAS

# zolone

Insecticide of the Acaricide



puts extra power  
in your hands  
to protect your  
cardamom.

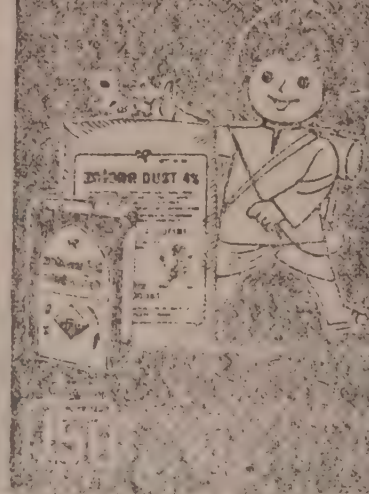


Phosalone, the active ingredient in Zolone has a slow breakdown rate combined with a broad spectrum of action. The result—a number of unique benefits only Zolone can offer.

- Effective against a broad spectrum of pests, yet is harmless to bees, parasites and predators of crop pests.
- Has a local penetration action, so is also effective against sucking pests.
- Stays fully effective for as long as 15 days—twice as long as most other insecticides.
- Has longer persistency of action—so fewer sprayings required, reduced pesticide costs.
- Recommended as part of integrated pest control programmes.
- Available as Emulsifiable Concentrate (35% Phosalone) and as Dust (4% Phosalone).

Manufactured by  
**VOLRHO LIMITED**  
Secunderabad 500 003

Marketed by  
**VOLTAS LIMITED**  
Agro-Industrial Products Division  
Bombay • Calcutta • Madras  
New Delhi • Bangalore • Ahmedabad  
Secunderabad • Cochin • Bhopal



For more information,  
write to:  
VOLRHO LIMITED,  
Secunderabad 500 003.





of small cardamom seedlings raised in two stages-primary and secondary-and the seedlings be ready for planting in the field after 20-22 months of sowing.

#### Preparation of Land & Plantation:

The initial work of preparation of land involves clearing of overgrowth and thinning out of old trees or branches in order to have an even over-head canopy which will provide plants with filtered sunlight. In areas where tree growth is sparse and inadequate, suitable quick growing temporary shade trees as well as permanent shade trees are to be planted. Footpaths are to be provided inside the plantation to facilitate transport of inputs and harvested produce. Soil conservation programme is an integral part of the land preparation as the crop is grown mostly on hill slopes. Contour bunding or bench terracing according to the physical nature of the land and topography of the land is to be undertaken. Opening of drainage channels, forming retention pits at regular intervals in between rows can also reduce soil erosion to a great extent. Pits of size 30 x 30 x 30 cms. are dug during April-May at a spacing of 1.5 x 1.5 to 2 x 2 metres. The pits should be filled with top forest soil immediately on receipt of the first new monsoon showers. The work of filling up pits with forest soil is also carried out immediately after opening the pits. Planting is done in the months of June-July. Planting is started when the soil is moist to the planting depth. Cloudy days with light drizzles would be ideal for planting. Planting is avoided during heavy rains. Seedlings are planted in the

moist soil just deep enough to cover the rhizomes. Deep planting is harmful as the growth of new shoots will be retarded and the plants die due to decay of the rhizomes. Planting is done by forming a small depression in the filled in pit and the seedlings planted in the centre. Soil is then replaced just to cover the rhizome portion of the seedlings and pressed firmly. Immediately after planting, the seedlings are to be supported by stakes to prevent damage due to heavy rain and wind. The plant base is adequately mulched after planting to protect the loose soil around the base from run off. In the case of rhizome planting, the planting material may be kept in a slanting position and the rhizomes covered with soil as in the case of seedlings.

#### After care:

Plants get established in the field within 15 to 30 days. It takes 4-5 years to attain the stage of normal production. During the younger days, weeding twice an year, occasional spraying of fungicides to ward off fungal diseases, spraying insecticides against leaf eating caterpillars etc. are the important cultural and plant protection operations carried out in the plantations.

Cardamom being a shade loving plant, shade regulation assumes great importance in increasing production. In order to provide adequate light during rainy season when the intensity of light is very poor, it is necessary to carry out shade regulation before the onset of monsoon. Similarly, there should be sufficient over-head canopy when the summer season commences. Generally no manuring is practis-

ed for large cardamom. But experience has shown that application of 3-4 M.T. cattle manure or compost, and 30 kgs. of Nitrogen per hectare per year increase the yield of cardamom by 25-30%.

#### PESTS AND DISEASES:

Large cardamom has no major pest problem excepting hairy caterpillars causing defoliation especially in young plantations. Spraying of BHC 50% Wp at 0.25% concentration is found effective for the control of the caterpillars.

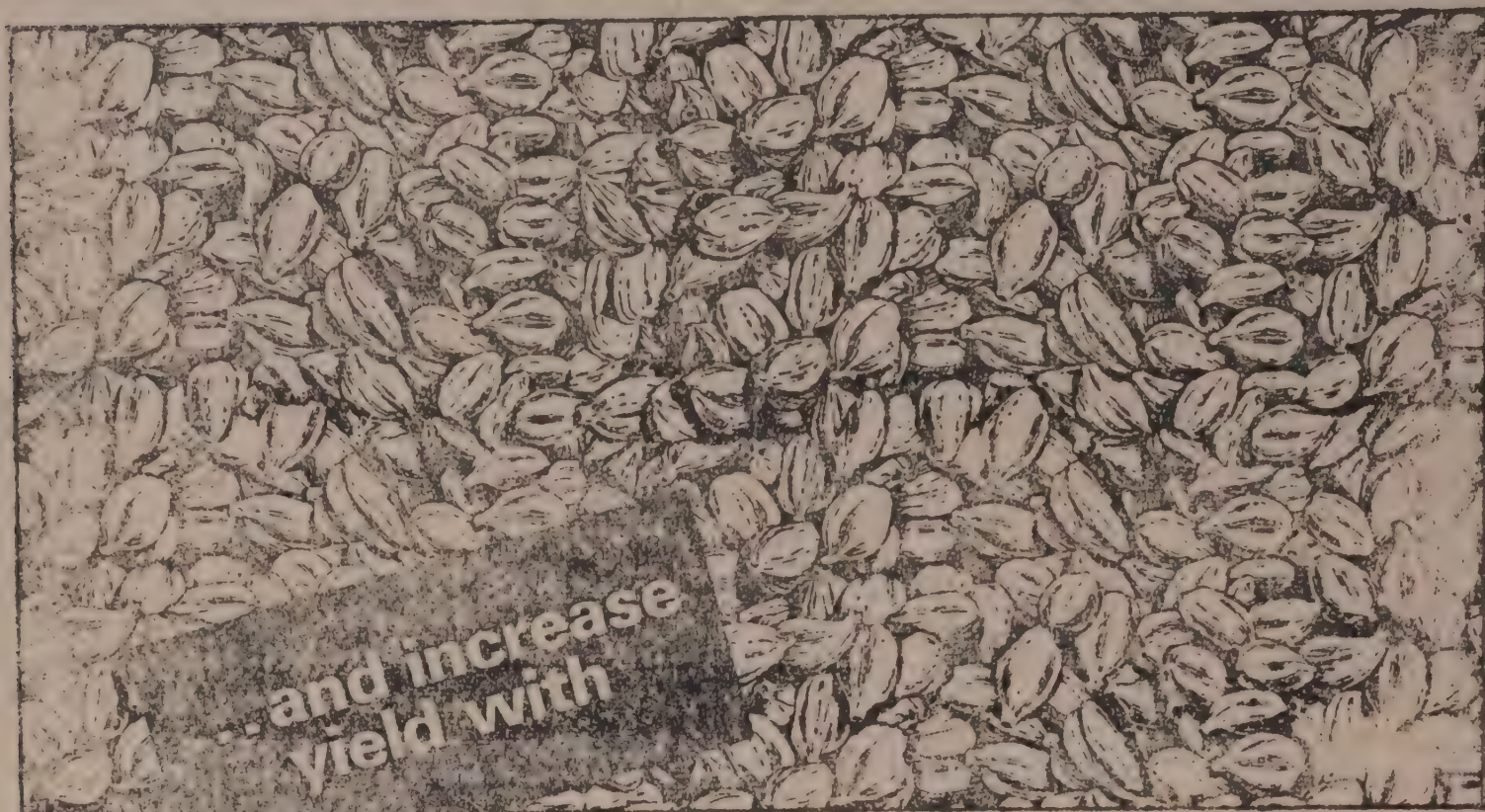
Of the diseases, the Furkey virus disease is the most important one. Cardamom plants are highly susceptible to this disease. The earliest external symptom is the emergence of numerous stunted non-productive shoots. As the disease advances, the entire new shoots become stunted, and the leaf size reduced.

As no method of curing a plant of viral infection has been found out yet, the only course of action is to uproot and destroy the affected plants regularly on spotting out early symptoms and thus remove the source of infection altogether. The plants should be either buried deep or burnt. As the disease is not transmitted through seed, use of disease free seedlings raised from seeds is the only effective method of controlling the spread of the disease.

Another serious disease of cardamom called Chirkey is also caused by virus. The disease appears as drying of the leaf tips which gradually enlarges into brown streaks and the leaves show a burnt appearance later. This will affect the photosynthetic activity in plants which in turn result in poor growth and yield.



Ensure adequate  
nutrient supply to your  
cardamom crop



and increase  
yield with

ARIES

# AGROMIN

India's First Chelated Plant Nutrients



Zinc and other nutrient deficiencies can result in curling, mottling, paling and yellowing of leaves, weak new shoots and shedding of fruits leading to poor cardamom yield.

Now you can ensure a bountiful cardamom crop through adequate nutrient supply with Agromin chelated plant nutrients.

- AGROMIN foliar spray supplies plant nutrients in chelated form, making them fully available to the plant. A wetting and dispersing agent ensures maximum absorption.

- AGROMIN is compatible with other agro-chemicals and enhances the utilisation of major nutrient fertilisers.

For details write to:

The Agricultural Adviser

ARIES AGRO-VET INDUSTRIES PVT. LTD.

P.O. Box 9417, Bombay 400 093



Aries AGROMIN chelated plant nutrients increase crop yield economically





Harvesting of large cardamom

In the case of Furkey disease, the only method of controlling the disease is by regular rouging of affected plants.

No serious incidence of any viral disease has been noticed in this crop.

#### Harvesting and Processing:

The plants begin to bear fruits in the third year of its planting. Harvesting is done in one hand and hence the harvested produce often contains fruits of different stages of maturity. The stalk bearing the cluster of fruits is cut very close to the leaf node with the help of a specially designed knife. The harvesting season is August-September in the case of Sawaney variety and October-November for Ramshai and Golshai varieties.

After the harvest, the fruits are separated from the panicles, washed in water to remove soil particles and allowed the water to drain off. The present tech-

nique of curing is to apply direct heat to capsules in an open crude kiln. The fruits are spread on a platform made of bamboo mat over the kiln. Below the bamboo

mat a G.I. sheet is laid to avoid direct fire from the fire place. Smoking is then done using green and dry fire wood so that it does not burn away easily but gives a lot of smoke. The temperature is always maintained at low level for better curing. This heat treatment is continued for 60-72 hours when the colour of the capsules turn dark brown and they shrink in size due to loss of moisture. The dried cardamom after curing is then rubbed with hands for removing the ends and finally winnowed. About 25% of the fresh weight of the fruits is recovered after drying is completed.

#### Marketing:

Cardamom is packed in gunny bags and taken to the nearest assembling market. As no attempt is made in grading the produce by the producer lot of variations in size and shape of dried fruits are seen in the lot being brought from a plantation. These bags are generally carried to the



A smoke house under construction



assembling markets by head loads and/or by mules, jeeps etc. depending on the location and distance. More than 80% of the growers transport their cardamom by head loads to the nearest marketing centres.

When the produce is brought to the traders, he quotes a price after assessing its quality by pressing the fruits in between the fingers. Usually the prices thus offered are governed by the price prevailing in the important markets like Calcutta, Delhi, Bombay, Kanpur and Amritsar. The commission agents in the principal markets thus receive cardamom on consignment basis from the wholesalers in the producing centres. These commission agents recover the cost incurred in selling the cardamom from the wholesalers in the producing centres. This cost includes commissions brokerage, weighing charge, godown rent, packing charges,

bank charges etc. Wholesalers, retailers and exporters in the principal markets transact through the brokers. As the demand for cardamom in the retail market and for export is for different qualities, grading is done by the wholesale dealers. Cardamom is also sold in the form of seeds both in the domestic and overseas markets. Export shipments are usually despatched in packing cases wrapped in gunny bags each weighing 30-40 kgs.

In addition to the private traders, certain institutional agencies like State Trading Corporation of Sikkim, Fair price shops run by the Civil Supplies Department are also engaged in the collection and disposal of cardamom inside the State of Sikkim. However, these institutional agencies handle hardly 1% of the internal trade. Even this little quantity ultimately goes to the hands of the private traders later.

Uses:

At present there is not much demand for large cardamom in foreign countries. It is estimated that about 70-80 M.T. of cardamom is exported per year to the Middle East, Singapore, U.S.A., Germany etc. through Calcutta and Bombay Ports. They use cardamom in cooking, confectionary, bakery and in confection cakes and processed meat products.

Large cardamom is mainly consumed in India. The demand is more concentrated in North India where it is used in the preparation of food, chewing and without betel leaves, flavoured sweets, puddings, beverages etc. It is also used in the preparation of some Ayurvedic medicines. In South India, it is used in small quantities in the food preparations, in the preparation of Snuff and Agarbathies.

With best compliments

**K. J. PLANTATIONS**

QUILON - 691 004

Phone: Office: 2380, 2080      Resi: 2463, 3929

Telex: 0886 - 208      Telegram: 'SHANVILAS'

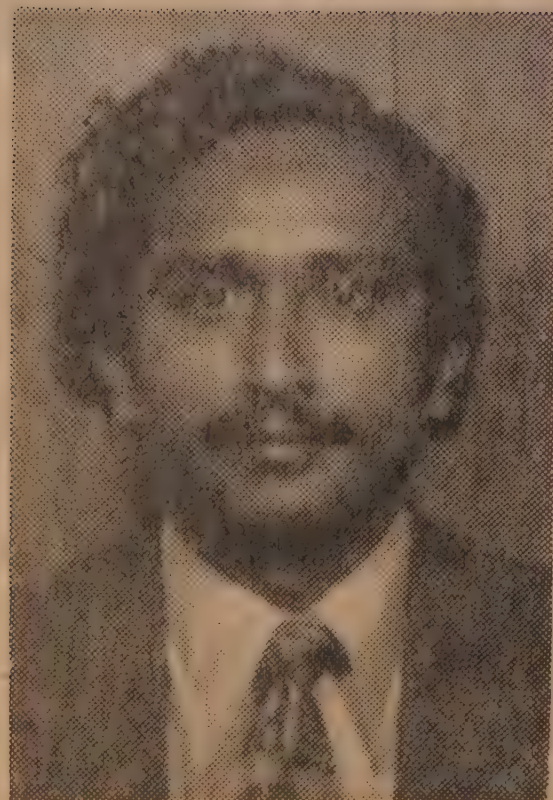
Coffee and Cardamom Estates at NELLIAMPATHY  
PALGHAT Dist.

Phone: Padagiri: 23



# PERIPHERAL ARAB MARKETS FOR CARDAMOM

BHARATHAN PILLAI\*



Recently we have been focusing our attention mainly on traditional and established markets for cardamom, viz. the Middle East and the Scandinavian countries. Of course, some efforts were taken to market cardamom to countries like Japan in the Far East, Russia in East Europe, etc. Mere dependence on certain markets will not be in the interest of the cardamom industry in India. It is a high time that we explored new markets and diversified the uses of cardamom. This is now becoming more pressing as we are anticipating increased production in India due to the various developmental activities undertaken by the Cardamom Board. Further, other producer-exporting countries like Guatemala, Sri Lanka and Tanzania are planning to expand their production. They are working to push their produce to the national cardamom markets specially to the 'Core' markets.

We have already seen that in Scandinavian countries our competitors have pushed us back and are now enjoying near monopoly. However, we still hold the lead in the Middle East, Japan, Russia, etc. While putting efforts for increasing production, we have to take initiative for finding out outlets for the surplus production. With this in mind the Cardamom Board undertook a market survey for cardamom in the peripheral Arab markets, viz. Iraq, Syria, Jordan, Egypt, Libya, Tunisia, Algeria and Morocco during February and March 1979 with the assistance from International Trade Centre, UNCTAD/GATT, Geneva.

As a first step in expanding markets, we selected the peripheral Arab markets as experts held it would be easier to push cardamom to these countries. Naturally, the chance of these countries falling in line with their neighbours viz. Saudi

Arabia, Kuwait, Qatar, etc. are more likely.

Of the eight peripheral Arab countries mentioned above, now only five — Iraq, Syria, Jordan, Egypt and Libya — import cardamom. The people in the other 3 countries — Tunisia, Algeria and Morocco —, although heavy consumers of almost all other spices do not know about cardamom or its uses.

Taking into account all imports of cardamom from different sources, accounted and unaccounted, the total size of the market (of the five countries mentioned) varies between 500 M.T. and 700 M.T. per year.

As one of the Indian counterparts in the survey team, I had the opportunity to undertake field investigations in these countries



# LIVE A LOT MORE BRIGHTER

Live red, live blue, live pastel, live 593 colours and designs. Coir floor covering lets you choose the design and colour you want to live with.

And what's more coir floor covering stays cool during summer, keeps the chill off your feet during winter. It is dust proof and lasts a long time.

Take a look at the wide range of Coir products in our Show Rooms - It's going to sweep you right off your feet.

**Door Mats \* Matting \* Mourzouks \*  
Pile Carpets \* Rubberised Coir Cushioning.**

**COIR PRODUCTS -** Easy on your feet  
Easy on your wallet

*For your requirements please contact:*

SECRETARY, COIR BOARD, COCHIN-682 016 (KERALA)

OR

VISIT ANY OF OUR SHOW ROOMS AND SALES DEPOTS AT:

1. NEW DELHI:	16A, Asaf Ali Road	Tel: No. 271388
2. BOMBAY :	5, Stadium House, Churchgate	„ 295212
3. CALCUTTA :	22 Loudon Street.	„ 445287
4. BANGALORE :	1-A, Mahatma Gandhi Road.	„ 51216
5. MADRAS :	1/155, Mount Road	„ 85787
6. COCHIN :	Karuna, M. G. Road, Opp. Kavitha Theatre.	„ 35277
7. CHANDIGARH :	S. C. O. 85, Sector 17-C.	„ 25753
8. BHUBANESWAR :	No. 17, Janpath, Babujee Nagar.	„ 50944
9. MADURAI :	52, East Veli Street, Near Chinthamani Talkies	„ 25505
10. PATNA :	Biscomaun Bhawan, West Lawn	„
11. HYDERABAD:	5-8-328, Chapel Road, Hyderabad-500 001	„ 36276
12. JAMMU :	Gumat Bazar, Jammu Tawi	

or

ANY OF OUR ACCREDITED DEALERS



# ESTIMATE OF TOTAL SIZE OF MARKETS FOR CARDAMOM

Countries	Present imports	Anticipated growth	
	(M.T.)	(M.T.)	
India	80 — 100	120	—
Yemen	20 — 30	50	—
Guatemala	310 — 360	450	470
Libya	20 — 100	100	120
Others (Tunisia, Algeria & Morocco)	50 — 100	350	750
TOTAL	480 — 690	1070	1510

urnished is a brief account of findings in the Libyan market.

YA:

eparate statistics of imports cardamom is not available m authoritative sources in ya. The import figures of damom are clubbed with that nutmeg and mace in the for- n trade statistics. So, it is e easy to make out whether ya, at present, imports any able quantity of cardamom. t the commodity is in use e; although at the time of the d investigation it was out of ck in most of the shops there. de sources estimate that the rent consumption level will be nething between 50 M.T. and 0 M.T. per year. According to m, cardamom is not made ailable through official cha- als of import. Cardamom bro- nt by Libyans visiting Saudi bia for religious festivals ne to the market. During estigations, it was observed t there should be great de- nd for cardamom in Libya s conclusion is based on the ference for 'Cardamom-coffee, ong the people. Most Libyans ot know the sources of sup- of cardamom. Even the ood Supplies Trading Establi- ment" which is at present the tional Agency for import of damom and some other spices

was not aware of the supply potential of India or other carda- mom producing countries

India's export of cardamom to Libya has been practically ne- gligible. In 1971 and 1972 we exported about one M. T. each. Then, after a lapse of about 5/6 years, India has again shipped one M.T. during 1978. There is no record of Guatemalan carda- mom in the official statistics or trade sources. Sri Lanka, one of the other producing countries, is exporting only marginal quanti- ties. Hence we have to conclude that at present Libya gets carda- mom only through third country sources, either accounted or un- accounted.

Like other Arabs in Saudi Arabia, Kuwait, etc. the Libyans also use cardamom in their coffee. Drinking and serving 'cardamom-coffee' is customary among the people. More so, at present when the country has enormous wealth out of their oil resources. The per capita income is very high in Libya. The Libyan consumer's psychology is to follow their bretheren in other oil-rich Arab countries. At pre- sent the Libyan consumption level is no where near that of Saudi Arabia, due to the lower percentage of cardamom used in cardamom coffee, popularly

called 'Gahwa' in the Arab world. Presumably, this is because of the non-availability of the com- modity in the market. The consumers interviewed indicated that drinking 'Gahwa' is on the increase among all classes of people. The Libyans consider cardamom as a precious com- modity because of the high price coupled with their customary habit of drinking cardamom coffee. The Islamic culture followed in Libya is hardly any different from that of Saudi Arabia, the world's single largest consumer of cardamom. Taking alcoholic drinks is strictly pro- hibited in the country. This very reason provides us hope of higher consumption of cardamom by the Libyans in future. The Libyan market requires the best and only the best. But the store-checks revealed a totally different picture as far as cardamom was concerned. The quality of car- damom available in the shops was only medium, comparable to Indian AGS or lower grades. The reason attributed for this was that the commodity was not in stock and that the available limited quantities were of previous year's balance. The retail price of cardamom in the worker's stores was Libyan Dinar 16 per kg. (US \$ 52.8), at the time of the study.

Until December 1977, spice trade in Libya was completely in private sector. It was and has been the policy of the Libyan Government to nationalise Inter- national trade and over 30 public sector companies have already been formed through which imports of a large number of commodities have been cana- lised The National Agency



# A. V. THOMAS GROUP COMPANIES

## THE NELLIAMPATHY TEA & PRODUCE COMPANY LIMITED

Registered Office:

W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Manalaroo Estate  
Padagiri P. O.  
(Via) Nemmara  
Palghat Dist.

- Area under Cardamom

407 Hects.

## THE HIGHLAND PRODUCE CO. LTD

Registered Office:

W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Carady Goody Estate  
Vandiperiyar P. O.  
Pasuparai Estate  
Pasuparai P. O.  
Elappara

- Area under Cardamom

225 Hects.

- Area under Cardamom

91 Hects.

## THE MIDLAND RUBBER & PRODUCE CO. LTD.

Registered Office:

W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Arnakal Estate  
Vandiperiyar P. O.

- Area under Cardamom

294 Hects.

## THE KALPETTA ESTATES LTD.

Registered Office:

W-21/674, Beach Road  
Post Box No. 47  
ALLEPPEY - 688 001

Chulika Estate  
Meppadi P. O.  
Kozhikode Dist.

- Area under Cardamom

206 Hects.



responsible for import of cardamom and other spices in Libya is:

Food Supplies Trading Establishment,  
El-Rashid St., El-Drehi Building  
P.O. Box 11114, Tripoli, Libya.

This company is still in its infancy. It is placing orders directly with exporting firms in different countries based on the samples and their qualities. After import, the trading establishment channels the commodities through the worker's stores for direct sale to the consumers. Under the Worker's Participation Movement currently going on in Libya, the management and the control of several private as well as public firms including retail outlets have changed completely and are placed by worker's committees. The retail sale price is so fixed that it is equal to the import prices (C&F, Tripoli). Taxes or transportation expenses are not added to the cost. Obviously they are taken care of by the state itself.

Libya at present is virtually an unexploited market for cardamom. Properly tapped, it may turn out to be a very potential market. This will depend on how ably and quickly the Indian exporters enter the market. The per capita consumption of cardamom in the affluent Saudi Arabia is estimated to be around 250 grams/year. If Libya can be brought to all in line with Saudi Arabia, which will not be difficult) the consumption there may go up to 50 M.T. (Libyan population is about 3 million). This may perhaps seem to be an exaggerated estimate. Even if the Libyan per capita consumption goes up to

only half of Saudi Arabia, Libya will have to import not less than 350 M.T. of cardamom every year. It is to be mentioned in this context that this estimate of 350-750 M. T. is based on several assumptions. The important task is to properly educate the National Food Trading Establishment of the quality of Indian cardamom and our supply potential. Adoption of a stronger selling approach (personal selling), and immediate follow up on the following recommendations are also suggested.

- (i) The Food Supplies Trading Establishment in Tripoli should be supplied with all information regarding the availability of cardamom from India, quality standards, prices for various grades, etc. along with a complete list of addresses of leading exporters.
- (ii) Publicity folders on cardamom and its use, in coffee specially mentioning the higher percentage in "Gahwa" used in Saudi Arabia (possibly a good recipe) should be prepared in Arabic. These folders can be distributed to the Libyan consumers at the point of purchase through the workers' shops with the assistance of the Indian Embassy and the FSTE.
- (iii) Indian exporters should personally meet the office holders of FSTE with samples of different grades and quotations. Business can be best achieved through personal liaison. Business representatives should be in possession of a letter of introduction from their firms duly

authenticated by the Cardamom Board or the Spices Export Promotion Council.

- (iv) All prices should be quoted c. i. f. Tripoli. Under Libyan laws, insurance must be effected in Libya. Effective and quicker communication should invariably be adopted, preferably by telex or cable. Correspondence in Arabic will certainly produce better result.
  - (v) Shipment should be effected only against a confirmed irrevocable letter of credit.
  - (vi) Cardamom Board's participation in the Tripoli international Fair for the next 3 years is strongly recommended. Demonstration of the preparation of cardamom-coffee should be done in the Fair along with distribution of publicity literature.
  - (vii) The Cardamom Board should be in regular touch with the FSTE.
  - (viii) India should offer the higher grades of cardamom, viz. AGEB / AGB, or CGEB / CGB to the Libyan market. Prices quoted should be competitive.
  - (ix) Export of cardamom in consumer packets of 50 gms. and 100 gms should be explored along with the present practice of bulk-selling. Information printed on such consumer packs should be in Arabic.
- (Report on Jordan will follow in the next issue of "Cardamom").



With the best compliments from:-

## **M/s. JOSEPH COFFEE CURING WORKS**

**PATTIVEERANPATTI**

**AGENTS: COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. KARUPPIAH NADAR & CO.:**

**PATTIVEERANPATTI**

**(Madurai Dist)**

Telegram: "JOSCOFFEE"

Telephone No. 4

With the best compliments from:-

## **M/s. Justin Leonard Coffee Curing Works**

**PATTIVEERANPATTI**

**AGENTS:- COFFEE BOARD**

**AND**

**LEADING CARDAMOM AUCTIONEERS**

*Prop:*

**P. R. K. NADAR**

**PATTIVEERANPATTI**

**(Madurai Dist.)**

Telegram: "JUSTIN"

Telephone: No. 11



# Use slant pandals in Cardamom Nurseries

S. Parameswar, H. S. Haralappa, H. P. Mahesha Gowda\*

Cardamom can be propagated either by seedlings or by suckers. The sucker propagation has got its own limitations as the material available for planting at a time is very limited. Also, the deadly disease 'Katte' is transmitted only through suckers. Therefore, seedling propagation is recommended.

Normally seeds are sown on well prepared beds to raise nurseries during the months of September - October depending on the time of harvest in Karnataka. Germination will commence in about 30 days time and may usually continue for a month or two. When initial germination is noticed, the mulch materials are removed and the seedlings are given protection from direct exposure to sun and rain by providing shade pandals erected either for individual germination beds or overhead pandals for a number of beds together.

When the seedlings are about 6 months old, monsoon sets in and the seedlings will be caught by the rain. The rain water collected on the flat pandals will drip on the young seedlings which may sometimes lead to mechanical injury. On these mechanical injuries secondary prophytes will develop leading to leaf-rot and other fungal diseases which take a heavy toll of

plants during wet weather. The dripping of rain water and the severe attack of leaf-rot and other fungal diseases can be minimised to a considerable extent by erecting slant pandals on the seedling beds at 45° angle. On the slant pandals there is no scope for rain water to accumulate and drop on the leaves of young plants as the rain water flows down the pandal and away from the seedlings. This kind of slant pandals can be erected either for individual beds or for two or three beds together. However, it is better to give two or three sprays of 1% Bordeaux mixture during the rainy season to take care of the fungal disease, if any, under slant pandals. But, under flat pandals even fortnightly spraying of 1% Bordeaux mixture or any other suitable proprietary copper fungicide would not help in reducing the incidence and spread of these diseases. Therefore, it is advisable to erect slant pandals of 45° angle on the nursery beds to save plants from the severe attack of fungal diseases and to obtain healthy cardamom seedlings for propagation.

\*Regional Research Station,  
Mudigere,  
KARNATAKA STATE.

## MALE CARDAMOM

Dr. Shankar B. Dandin\*

Male cardamom popularly known as 'Ann chedi' in Malayalam is considered as a sign of prosperity by many planters. The estates having male cardamom plants are reported to have obtained better yield around that plant compared to the other areas. This is found to be possible even scientifically.

The main feature of this plant is non-production of capsules. The plant produces maximum flowers but capsule set is nil. This is because of the female sterility which might have occurred as a result of micromutation. Due to some of the fertility barriers, though the male component is fertile and healthy, capsule set is not observed. The actual reason for the non-setting of capsule is under investigation.

The reason for the better yield in surrounding plants is that the male cardamom serves as a potential male source. Cardamom being an insect pollinated crop, more number of healthy and vigorous pollen grains will be available for effective and efficient pollination. This increases the yield through increased fruit set.

Considering the scientific role of the male cardamom, it is advisable to distribute this plant at different places in the estate instead of removing it as a useless plant. Distribution of this potential male will definitely help in increasing the fertility of cardamom plants.

\*Indian Cardamom Research  
Institute,  
Myladumpara,  
KAILASANADU. P. O.,  
Kerala



# To millions around the globe



means garden fresh, hand picked and the best

## INDIAN CARDAMOM

We grow, deal in and export the best of  
Indian Cardamoms

 **Enterprises**

**Planters, dealers & exporters**

*Head Office:*

XXXVI/285-3 T. D ROAD, COCHIN - 682 011

Telephone: 33589 & 38527    Cable: BLISS    Telex: 885/472 BLIS IN

**Plantations:**

1. P. V. Plantations  
Mali - P.O.,  
Vandanmettu  
Phone: 41

2. P. V. Plantations  
Santhanpara - P.O.,  
Munnar.

**Purchase Office:**

P. B. No. 34, Door No. 109  
Ward No. 2 East Palace  
Bodinayakannur  
Madurai Dist.

Phone: 441 & 442  
Telex: 0447/210 BLIN IN  
Cable: BLISS

**Export Office:**

Vijaya House,  
Station Road  
Vikroly  
Bombay - 400 083

Phone: 582420  
Telex: 011/6485 SUJA IN



Cardamoms are available in attractive retail packets of  
50 gms, 100 gms, 250 gms, 500 gms, and 1000 gms. in  
different grades



# Monthly Statistical Abstract - October

## PRODUCTION:

The preliminary estimate of production for the crop season 1979-80 is placed at 4500 M. T. The state-wise break up is as follows:

State	Production (M.T.)
Kerala	3400
Tamilnadu	300
Karnataka	800
Total	4500

## AUCTION SALES & PRICES:

State-wise sales and weighted average prices for Oct. '79 and Aug. to Oct. '79 and comparative position in the previous year are given below.

State	Oct. '79		Oct. '78		Aug-Oct. '79		Aug-Oct. '78	
	Qty. (M.T.)	Av. Price (Rs/kg)	Qty. (M.T.)	Av. Price (Rs/kg)	Qty. (M.T.)	Av. Price (Rs/kg)	Qty. (M.T.)	Av. Price (Rs/kg)
Kerala	496	170.09	622	193.36	706	169.16	984	189.93
Tamilnadu	13	140.15	22	157.00	30	137.32	39	156.83
Karnataka	87	140.80	117	144.19	139	141.88	164	145.58
Total	596	165.15	761	184.73	878	163.76	1187	182.72

Source: Reports received from the licensed auctioneers.

The sales during Oct. '79 was 596 M. T. as against 761 M. T. during Oct. '78. The sales during Aug. '79 to Oct. '79 was only 878 M. T. as against 1187 M. T. during Aug '78 to Oct. '78. The reduction in auction arrivals during the month was mainly caused by the insistence of forest pass by the State Government and partly by the late crop during the current season. However, the reduction is expected to be compensated during the ensuing period of this season. The average price in Kerala-Tamilnadu regions was less by around Rs. 20/- per kg. compared to previous year, while in Karnataka region the price remained more or less steady.

## EXPORTS:

As per the reports from Customs Authorities, the exports of carda-

mom during Oct. '79 was only 136 M. T. valued Rs.28.12 millions as against 252 M.T. worth Rs. 54.40 millions. The average export price during Oct '79 was Rs. 206.81 per kg. as against Rs. 215.56 per kg. during Oct. '78.

Based on the reports from Customs, the exports during April '79 to Oct. '79 was 884 M. T. valued Rs. 167.27 millions as against 945 M. T. worth Rs. 175.87 millions during April '78 to Oct. '78. The unit export price during April '79 to Oct. '79 was Rs.189.12 per kg. as against Rs. 186.37 per kg. during April '78 to Oct. '78.

On the basis of the export returns furnished by the exporters of cardamom, the exports of cardamom during April '79 to Oct. '79 was 789 M.T. worth Rs.148.17 millions. The reports for 95 M.T. are yet to be received from the exporters of cardamom. The exports during the current period is less when compared to the same period of the previous year. This reduction in exports is expected to be adjusted in the forthcoming months.



# *Stanes*

## CARDAMOM SPECIAL MIXTURE

N. P. K.  
40 (38) 80 (40) 80



For Particulars

## T. STANES & COMPANY LIMITED

### AGRICULTURAL DIVISION

Post Box No 3709 :: :: COIMBATORE 641 018

Telegrams: "STANES" Phone: 33514 to 33518

OR

### Our FACTORIES and Branches:

- |                            |            |
|----------------------------|------------|
| 1. Avaniapuram (Madurai    | — 625 012) |
| 2. Ettumanoor (Kottayam    | — 686 631) |
| 3. Calicut (Malabar        | — 673 004) |
| 4. Kaninangalam (Trichur   | — 680 007) |
| 5. Mangalore (South Kanara | — 575 006) |
| 6. Palghat (Kerala         | — 678 001) |
| 7. Shimoga (Karnataka      | — 577 201) |



# AUCTION ARRIVALS OF CARDAMOM

Centre	October 1979			October 1978			August-October 1979			August-October 1978		
	Qty. Sold (kgs)	Max. Price (Rs./kg.)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)	Qty. Sold (kgs)	Max. Price (Rs./kg)	Av. Price (Rs./kg)
<b>KERALA</b>												
Vandanmettu	351007	215.10	173.51	419798	260.00	199.59	463468	220.00	172.98	594929	260.00	197.04
Santhampara	104148	210.00	164.81	115625	230.20	182.68	168152	210.00	164.53	223884	230.20	180.44
Udumbanchola	2848	184.50	166.58	30030	204.00	180.26	3188	184.50	166.72	55690	220.00	179.60
Kallar	31213	182.00	150.49	31167	218.00	170.04	65869	182.00	154.50	74025	219.70	171.88
Cochin	2410	210.40	162.68	6281	215.20	184.00	2410	210.40	162.68	7336	215.20	184.92
Parathode	3825	190.10	166.92	19013	217.50	182.69	6049	190.90	168.42	27635	217.50	184.31
Total (Kerala)	495451	215.10	170.09	621914	260.00	193.36	709136	220.00	169.16	983499	260.00	189.93
<b>TAMILNADU</b>												
Pattiveeranpatty	9622	225.90	145.55	19795	214.00	157.47	19890	225.90	143.30	35175	220.00	156.89
Bodinayakatur	3332	171.30	124.57	2227	193.20	152.82	10202	171.30	125.67	3941	195.50	156.31
Total (Tamilnadu)	12954	225.90	140.15	22022	214.00	157.00	30092	225.90	137.32	39116	220.00	156.83
<b>KARNATAKA</b>												
Mercara	9146	186.00	152.78	6745	169.50	148.86	13904	186.00	152.62	14799	180.00	148.21
Mangalore	4414	179.00	144.57	8825	175.50	147.97	9497	179.00	146.01	9924	175.50	147.88
Saklespur	71069	240.40	139.33	92316	261.20	144.35	112235	240.40	140.46	127581	261.20	145.85
Sirsi	2498	150.00	132.26	2979	161.55	133.30	2908	150.00	131.69	3303	161.55	133.71
Mudigere	—	—	—	6409	201.10	136.85	—	—	—	8293	169.20	138.79
Total (Karnataka)	87127	240.40	140.80	117274	261.20	144.19	138544	240.40	141.88	163900	261.20	145.58
Grand Total (India)	595532	240.40	165.15	761210	261.20	184.73	877772	240.40	163.76	1186515	261.20	182.72

Source: Reports received from licensed cardamom auctioneers.



# AUCTION PRICES OF SRI LANKA CARDAMOM

## SEPTEMBER-OCTOBER 1979

Cardamom Grade	Week Ended 8.9.1979		Week Ended 15.9.1979		Week Ended 22.9.1979		Week Ended 29.9.1979	
	Sri Lanka Rs./kg.	Indian Rs./kg.	Sri Lanka Rs./kg.	India Rs./kg.	Sri Lanka Rs./kg.	Indian Rs./kg.	Sri Lanka Rs./kg.	Indian Rs./kg.
LGS	—	—	425	225	Unquoted		420	222
LG	—	—	330	175	325-345	172-173	311	165
LLG 1	280-302	149-160	283-300	150-159	250-310	132-164	260-291	138-154
LLG 2	250-275	132-146	200-250	106-132	210-268	111-142	218-260	115-138
LB	189 Nom.	100	125-175	66- 93	150-188	79-100	180-189	95-100
LNS	110-179	58- 95	111-181	59- 96	90-145	48- 77	123-164	65- 87

	Week Ended 6.10.1979		Week Ended 13.10.1979		Week Ended 20.10.1979		Week Ended 24.10.1979		Week Ended 31.10.1979	
	Sri Lanka	Indian	Sri Lanka	Indian	Sri Lanka	India	Sri Lanka	Indian	Sri Lanka	Indian
LG	—	—	351-355	186-188	—	—	350 375	185-199	—	—
LLG 1	245-280	130-148	275-298	146-158	240 Nom.	127	250-309	132-164	253-276	134-146
LLG 2	240 Nom.	127	220-256	117-136	165-197	87-104	191-257	101-136	202-242	107-128
LB	161-171	85- 91	150-175	79- 93	149 Nom	79	135-185	71- 98	185-191	98-101
LNS	125-145	66- 71	60- 99	32- 52	100-127	53- 67	90-195	50-103	100-166	53- 88

Note: Sri Lanka Re-1 = Indian Rs. 0.5295

Source: Market Reports of (1) Forbes & Walker Ltd., P. O. Box 60, Colombo, Sri Lanka.  
(2) Barleet & Co. Ltd., P. O. Box No. 9, Colombo, Sri Lanka.

Grams: "POTASH" Kalamassery

Phone: 5742; 5743; 5644 Cochin

### TRAVANCORE CHEMICAL & MANUFACTURING CO. LTD.,

Regd. Office: P. B. No. 19  
KALAMASSERY-683 104.  
KERALA STATE

Factories at :

- |                |              |            |
|----------------|--------------|------------|
| 1. KALAMASSERY | 2. KUNDARA   | 3. KONUR   |
| Alwaye         | 4. TUTICORIN | Mettur Dam |

Manufacturers of :

1. Copper Sulphate
2. Copper Oxychloride & its Formulations
3. Sodium Aluminate
4. Sulphate of Alumina, (Ferric and Iron-free)
5. Barium Salts
6. Potassium Chlorate
7. Sodium Chlorate.



# NEWS AND NOTES



Sri P. K. Sivanandan IAS inaugurating the distribution of Board's Educational Stipend.

## Board Distributes Educational Stipend

The distribution of Board's Educational Stipend this year was officially inaugurated by Sri P. K. Sivanandan I. A. S., District Collector, Idukki at a function held at the Government College, Kattappana on 18th November 1979.

The Collector in his inaugural address pointed out the significant role played by Cardamom Board in the development of cardamom plantation industry and expressed his desire that the Board will render all possible assistance for the development of the industry and the uplift of the labour force. He also stressed the need for providing necessary facilities for imparting education to the labour class. Rev. Fr. Joseph Keethappully who spoke on the occasion appreciated the activities of the Board

and the labour welfare schemes implemented by it. Shri K. G. Nayar, Secretary, Cardamom Board, while welcoming the gathering informed them that the Board is undertaking a socio-economic survey on cardamom labour engaged in the industry. Prof. C. Ummer, Principal, Government College, Kattappana presided over the function. Shri P. S. Vijayanicker, Officer - in - Charge (Plantation Welfare) proposed vote of thanks.

## Board Meeting

The 37th meeting of the Cardamom Board was held on 14th Sept. 1979 in Cochin. Shri S. G. Sundaram, Chairman, Cardamom Board presiding over the meeting exhorted the members to increase the production as well

as productivity of existing cardamom plantations. He advised the Board to refrain from making any protest against the recent increase of export duty (from Rs.10/- to Rs.15/-) by the Government of India.

The Chairman also pointed out that the International Trade Centre (Geneva) has appreciated very much the peripheral Arab market survey conducted by the Board and has offered further help to the Board for undertaking future market development projects. In response to this offer the Board has submitted to the Government of India four more projects.

Our active participation in the International Fairs played an important role in our efforts to boost export. The Board's attempt to form a cardamom community (Association of cardamom producing countries) is being



pursued. Guatemala has expressed their interest in the matter of formulation of promotion schemes on mutually acceptable grounds.

The Chairman informed that the Board's own building for housing its Head Office at Cochin will be constructed shortly in the site acquired for the purpose. He regretted that inspite of all efforts of the Board the Karnataka Government has not yet deleted cardamom from the purview of Agricultural Products Marketing Committee Act. However, the Karnataka High Court has ordered a stay order restraining the APMC from collecting cess at enhanced rates on a writ petition filed by some private parties. The Government of Tamil Nadu has issued a notification deleting "Spices" from the 1st schedule of the Tamil Nadu Essential Commodities Order 1977.

The Chairman suggested to have conferences of Trade Associations in Bombay and Bodinayakanur to



Shri K. R. Kurup, Publicity Officer, Cardamom Board is explaining the exhibit of the Board's Stall to Mr. Ertl, Minister for Agriculture, West German when he visited Board's Pavilion in August 1979. | Sri Rungith Gupta Consul General of India, Frankfurt is seen in the centre.

find out methods for solving problems arising out of trade agreements with importers in other countries. He also agreed

to the suggestion of one of members that there should be some training programme for planters given by the Board officials for identification of pests and diseases.



A general view of the combined stall of the Cardamom Board and SEPC in the Indian Pavilion

## Packing of goods for IRAQ

The Iraqi authorities want Indian exporters to use straw and wood in packing goods meant for them. They complain some of our exporters still use straw and wood wool in packing which the Iraqi Customs Authorities have emptied and burnt as it was found infected by blight and pest. The Iraqis have also claimed damages for repacking.





A view of the painting competition held by the Staff Club, Cardamom Board, in connection with IYC celebration on Children's Day.

## Cardamom Figures In Sikkim Assembly

The Governor of Sikkim Shri B Lal touched on the development of Large Cardamom Plantation Industry in the State in his inaugural address of the Sikkim Legislative Assembly on 25th October 1979. The excerpt from his speech is given below:

"As far as cardamom is concerned, the Hon'ble members might be aware that only a few months ago the Sikkim variety of cardamom, botanically known as *AMMOMUM*", was brought within the purview of the Cardamom Act of India and immediately thereafter, the Cardamom Board of India established a regional office at Gangtok, with sub-centres at Mangan and Geyzing. The advent of the Board would be a great boon to the cardamom

cultivation in the State. The key areas to which the Board would address itself, are the evolution of healthy and good planting material, organising better curing and drying techniques and also provision of market intelligence. Already, the Cardamom Board has started work at Pangthang, near Gangtok where a model curing shed is ready. My Government would like to give all assistance to the Cardamom Board and all encouragement to the horticulturists in the State to rapidly increase the production levels".

## Cashew Board to be set up

The Union Government is expected to set up a Cashew Board soon with a view to co-ordinating all aspects of the industry from production to exports. The Board will among other things, take up

marketing of raw cashewnuts and thereby ensure a remunerative price to the growers.

The marketing pattern of the Cashew Board will be similar to that adopted by the Coffee Board for selling coffee. Of course, necessary changes will be brought about to suit the peculiar condition applicable to cashew.

The cashew industry in a note submitted to the Tandon Committee, set up by the Government to evolve a marketing strategy for the eighties, has sought restoration of free trade in the marketing of raw cashewnuts. The note has also stated that the industry cannot depend on imports of raw cashewnuts and hence indigenous production has to be stepped up.



A participant in the Fancy Dress Competition



# V. N. SURULIVEL NADAR & BROTHERS

Cardamom Exporters, Planters, Auctioneers & Commission Agents  
P. O. BOX No. 9 :: BODINAYAKANUR-626 513 :: S. INDIA

Established: 1947 Phone: 232, 255 Cable: DIAMOND Telex: 447 202 VNSB

Serving all the Principal Markets in the World and Enjoying the Highest  
Reputation overseas. Buyers for over three decades

## WINNERS OF

Awards and Certificates of Merit for Outstanding Export Performance in Cardamom  
from Government of India for the years 1969-70, 1970-71, 1973-74, 1976-77  
From Spices Export Promotion Council for 1973-74, 1974-75, 1975-76, 1976-77

## PLANTATION UNITS

1. THE ELLEMBILLERY ESTATE, MEPPADI, KERALA
2. SOUTH INDIA CARDAMOM PLANTATIONS, THARIODE, KERALA
3. THE VELLARMALA ESTATE, MEPPADI, KERALA

## AUCTION UNIT

UNITED CARDAMOM AUCTIONEERS, SANTHANPARA, KERALA

## REGIONAL OFFICE

224/3. 'RAMKRISHNA NIKETAN' SIR BALACHANDRA ROAD  
MATUNGA, BOMBAY-19 DD

Phone: 473146 :: Cable: ARASAN

## BRANCH

SHORTLY OPENING AT "SAGAR" No. 9, II FLOOR  
NARSHI NATHA ST., BOMBAY-400 009

OUR SPECIAL EXPORT BRANDS OF REPUTE IN ALL MIDDLE EAST COUNTRIES

'MUMTAZ' EXTRA BOLD CARDAMOM  
'HANDPICKED' GREEN CARDAMOM  
'TAJ' BRAND SUPERIOR BOLD CARDAMOM  
'DIAMOND' BRAND SPECIAL GREEN CARDAMOM

Largest Exporters of all Standard Agmark Grades of Green Cardamom  
Cardamom Seeds, Husks to U.K., U. S.A., CONTINENT, U.S.S.R. EAST  
EUROPEAN COUNTRIES, JAPAN with a reputation for quality and correct weight

VNS — A TRUSTED NAME IN CARDAMOM AT HOME & ABROAD  
SERVING THE NATION & THE TRADE FOR WELL OVER THREE DECADES



# Know Your Board Members

## Agjit Singh Anand



Shri Anand, the recipient of Soviet Land Nehru Award for the Best Translator, 1965, and the Award of the Government of Punjab for the Best Journalist of the year, 1971 is elected by Rajya Sabha in the Board of Directors of Cardamom. He is the Chief Editor of Nawan Zamana—a daily published from Jalandhar—since 1962.

Born in 1921 at Amritsar Dist. Shri Anand graduated from Punjab University. He is the Founder & executive member of Central Union of Punjabi writers since its establishment in 1956. He is an advocate of peace and friendship with socialist countries of the world. He entered politics in 1938 and was imprisoned many times on various charges. He has been working as advisor, office-bearer of several voluntary and statutory orga-

nisations such as Indo-G D.R. Friendship Association, World Peace Council, All India peace Council, Guru Nanak Dev University Senate, All India Indo-Soviet Cultural Society etc. He has been working as President of Northern Railway Workers' Union, Northern India University Workers' Federation etc. He acts as interpreter to foreign delegations visiting India and also at functions translating English speeches.

Shri Anand has travelled extensively throughout the socialist world. He has more than 30 publications to his credit including translations. Interested in journalism, literature and problems of small scale industries, he spends his spare time reading, writing and mountain-trekking.

## K. S. Skaria (Jr.)



Shri Skaria Junior (55), a Post-graduate in Economics from the

Bombay School of Economics & Sociology represents the large growers of cardamom in the Board for the last 10 years. He is now the Director of K. V. Zachariah & Sons (P) Ltd., Mundakayam and Managing partner of Associated Spices Exports, Bodinayakanur. He is a member of UPASI Cardamom Sub-Committee and Executive Committee Member, Mundakayam Planters' Association. Hailing from the renowned plantation family of Central Travancore—Pottamkulam family—Shri Skaria Jr. takes keen interest in the welfare of planters in Kerala.)

Address: pottamkulam Gardens,  
Mundakayam P. O.,  
Kottayam Dist., Kerala.

## J. M. Gandhi



Shri Gandhi Jayanthilal Manekchand (45), partner, M/s. Gandhi Sons, Bombay is a member of the Cardamom Board representing the Cardamom Trade Interests since 1971. His firm bagged the Spices Export Promotion Council's Award for top most export to Free Currency Areas last year. He is also



## PUBLICATIONS OF THE BOARD

- |   |  |          |
|---|--|----------|
| 1. "Know Your Market for Cardamom"      | Information on all important export markets of cardamom and list of importers.   | Rs. 50/- |
| 2. "Directory of Cardamom Planters"     | Names and addresses of cardamom planters in India.   | Rs. 50/- |
| 3. "Cardamom" magazine                  | A bulletin published in English, Malayalam, Tamil and Kannada covering useful information on all aspects of the industry.<br>Annual subscription | Rs. 6/-  |
| 4. List of Cardamom dealers/auctioneers | Gives names and addresses of registered dealers/auctioneers of cardamom.   | Rs. 2.50 |
| 5. "Cardamom Statistics 1977-78"        | Statistics on world production export, prices etc. (1971-72 to 1977-78)  | Rs. 15/- |
| 6. "CAP" (Cardamom Auction Prices)      | Weekly news letter on auction prices of cardamom at auction centres.<br>Annual subscription  | Rs. 10/- |

---

Postage free. Remittance by D.D. or M.O. to be drawn in favour of the Secretary

---

*Further details can be had from:*

The Secretary,  
Cardamom Board,  
Banerji Road, Cochin - 682 018

Telephone : 33837  
Telegram : "CARDAMOM"  
Telex : ELAM 0885-480



# CULTIVATION OPERATIONS

## JANUARY

	South West Monsoon areas (Kerala-Tamilnadu)	North East Monsoon areas (Tamilnadu)	South West Monsoon areas (Karnataka)
Primary nursery	Routine watering-removal of mulch if germination is noticed, followed by erection of shade pandals over the beds.	Sowing of seed in lines on the beds, spreading a thin layer of jungle soil. Mulching with potha grass and regular watering.	Regular watering and plant protection measures. Weeding. Collection of decomposed farm yard manure or jungle soil and cleaning.
Secondary nursery	Third round weeding and mulching. Second round manuring, routine watering and plant protection measures.	Watering as required. Plant protection measures	Routine watering, plant protection, weeding, collection of jungle soil and cleaning.
Starting of new plantations	Third round weeding	No work	Mulching with dried leaves.
Maintenance of plantations	Fifth round crop harvest. Thrips control. Providing foot paths. Third round weeding continued and completed.	Fifth round harvest. Thrips control.	Last round harvest completed. Curing storage or transport to market. Watch and Ward. Mulching with dry leaves.

member of the Administrative Committee, the Spices Export Promotion Council & Director of Jagdish Oil Industries Pvt. Ltd., Bombay. Shri Gandhi, Commerce Post-Graduate of Bombay University has travelled throughout the world many times and has distinguished himself as member of a number of Trade delegations.

Address: M/s. Gandhi Sons,  
Gandhi Building,  
232, Samuel Street,  
Bombay -400003, ☐

## SINGAPORE

Variety	PRICES			
	August 1979		September 1979	
	S. \$ per picul	Rs./kg.	S. \$ per picul	Rs./kg.
Cardamoms Green-Sri Lanka	—	—	2750	170.53
Cardamoms Small-Sri Lanka	—	—	2600	161.24
Cardamoms White-"A. B."	2600	161.24	2800	173.63
Cardamoms Wild-Nepal	480	29.77	485	30.07

Note: One Picul—60.47 kg.  
1 S.\$ —Rs. 3.75

Source: High Commission of India,  
Singapore.



# Going abroad is simple



**we'll take care of  
all formalities**

approved by



Whether you travel to the East or the West, let us arrange it for you. Passport, visa, certificates, tickets — everything. Experienced staff are at your service to see that you have a trouble-free, smooth journey. Come and see us or just call us up. We will take care of all the document formalities for air/sea travel.



**Peirce Leslie India Limited**  
**— professional travel agents for 50 years**

Bristow Road, Willingdon Island, Cochin 682 003

Phone : 6868-6869-6860 (6 lines) Grams : PEIRCEWIL Telex : 0885-215 PLI IN

Offices at

Mahatma Gandhi Road, Ernakulam, Cochin (Phone 36888, 36144, 34373), Telex : 0885-473-PLTL; Old Court Road, Calicut  
Race Course Road, Coimbatore (Phone 22041-44); Jeppu Road, Mangalore (Phone 23231-33); Port Road, Quilon (Phone 3950, 3800)  
Mahatma Gandhi Road, Opp. Ayurveda College, Trivandrum (Phone 2480); Lavelle Road, Bangalore (Phone 562040, 562232)



# GANDHISONS

THE LEADING EXPORT HOUSE IN THE SPICES TRADE

Exporting to all Principal Markets in the World

PEPPER, CARDAMOMS, GINGER, TURMERIC,  
CHILLIES, CELERY, CUMIN, FENNEL, CORIANDER,  
CASSIA and other SPICE SEEDS

also

CASHEWNUTS, TEA & COFFEE

BRANCHES AND AFFILIATED CONCERNS AT  
COCHIN, ALLEPPEY, CALICUT, BODINAYAKANUR, MANGALORE,  
SAKLASPUR, MERCARA, AMRITSAR, COONOOR,  
GUNTUR & DUGGILALA

*Kindly write to us for all your interests*

GANDHISONS

'GANDHI BUILDING'

232, Samuel Street

BOMBAY-400 003

Phone: 324116  
(3 lines)

Telex:  
BOMBAY (011) 2540  
COCHIN (046) 226  
AMRITSAR (034) 212

Grams: "SONGANDHI"



# Cardamom Marketing Corporation

VANDANMETTU P. O. IDUKKI DISTRICT.

Kerala, India.



The best and foremost cardamom auctioning  
establishment in India.

**PUBLIC AUCTIONS ARE CONDUCTED  
ON EVERY SATURDAY**

Selection of all qualities of cardamom possible  
and any quantity of cardamom available.

We handle more than 60% of the cardamom produced in  
Kerala securing the highest prices.















